598

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09:38:22    1    approach.  There are others that use
09:38:31    2    different approaches.  It's a very
09:38:31    3    active field of research.
09:38:32    4    Q.       And in fact, if you're using a
09:38:35    5    Markov Chain Monte Carlo analysis, the
09:38:38    6    sequential Monte Carlo analysis that
09:38:40    7    you used here, that's just step one of
09:38:40    8    the Markov Chain Monte Carlo analysis.
09:38:40    9         Correct?
09:38:48   10    A.       I'm not sure exactly what you
09:38:49   11    mean.
09:38:49   12    Q.       Well you need to use the
09:38:50   13    sequential Monte Carlo analysis to
09:38:52   14    generate your example.
09:38:55   15         Right?  Which you then take
09:38:59   16    through with the Markov Chain Monte
09:39:00   17    Carlo analysis?
09:39:01   18         Correct?
09:39:01   19    A.       Again, I'm not entirely certain
09:39:04   20    of what you're referring to.
09:39:06   21    Q.       Are you aware that the method
09:39:08   22    that you used here, the sequential
09:39:09   23    Monte Carlo analysis, is not
09:39:11   24    peer-reviewed and that the papers that
09:39:12   25    you cite in your report are actually
```

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09:39:16    1    describing a different method which is
09:39:19    2    the Markov Chain Monte Carlo analysis?
09:39:21    3    A.       So the algorithm, the initial
09:39:21    4    algorithm is --- has been published.
09:39:27    5    The authors have developed a number of
09:39:28    6    extensions and a number of kind of
09:39:31    7    additional things that can be done.
09:39:32    8    And so you know, like I said it's a
09:39:34    9    very new active area of research.
09:39:39   10    Q.       Let me rephrase the question
09:39:39   11    because I thought I was being pretty
09:39:40   12    discrete.  Are you aware that that
09:39:41   13    particular method you used, the
09:39:43   14    sequential Monte Carlo analysis to
09:39:45   15    generate your map samples, that is not
09:39:47   16    peer-reviewed and that the papers that
09:39:48   17    you cite in support of what you're
09:39:50   18    doing in your report are describing a
09:39:52   19    different method?
09:39:56   20    A.       As I said, it's a very new
09:40:00   21    algorithm.  And so, they method is,
09:40:01   22    like the method --- they have written
09:40:01   23    papers describing the algorithm.
09:40:03   24    Those papers are publicly available.
09:40:06   25    Q.       Have they been peer-reviewed
```

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09:40:09   1   yet?

09:40:09   2   A.   They are being peer-reviewed.

09:40:10   3   Q.   Have they been peer-reviewed?

09:40:13   4   A.   They are in the process of peer

09:40:15   5   review.

09:40:15   6   Q.   Have they received a peer

09:40:15   7   review commenting on the validity of

09:40:15   8   that technique or method?

09:40:20   9   A.   I'm --- I can't speak to that.

09:40:21   10   I'm not the author of the papers.

09:40:29   11   Q.   All right.

09:40:30   12   You refer to the concept of a

09:40:33   13   representative sample, and I believe

09:40:34   14   you mentioned that in your testimony.

09:40:36   15   What is the representative sample?

09:40:39   16   A.   So the easiest way to think

09:40:39   17   about this would be in the context of

09:40:45   18   survey research.   So when a survey

09:40:45   19   researcher wants to understand

09:40:45   20   something about the opinions of, let's

09:40:48   21   say the United States, the population

09:40:49   22   of the United States, they obviously

09:40:51   23   don't go speak to every person in the

09:40:54   24   United States.   They take a sample of

09:40:56   25   the population and they draw

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```
09:40:57    1    inferences from that sample.  It's
09:41:01    2    important that that sample be
09:41:03    3    representative of the broader
09:41:04    4    population so that the inferences that
09:41:06    5    are drawn are accurate.
09:41:09    6    Q.      And how do you determine
09:41:11    7    whether the sample that you used in
09:41:12    8    your report was in fact
09:41:13    9    representative?
09:41:15   10    A.      The --- I'm sorry the
09:41:16   11    algorithm?
09:41:17   12    Q.      I'm sorry.  How did you --- how
09:41:19   13    did you determine whether the ---
09:41:23   14    whether that the simulations that you
09:41:23   15    are using in your report are in fact a
09:41:26   16    representative sample of the broader
09:41:28   17    elections scheme?
09:41:29   18    A.      So the researchers who have
09:41:31   19    developed this algorithm have shown in
09:41:34   20    a variety of ways that the sample is
09:41:36   21    drawn --- that is drawn is
09:41:37   22    representative.
09:41:40   23    Q.      I'm talking about the sample in
09:41:42   24    your particular report.  How did you
09:41:43   25    determine that that was
```

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```
09:41:46   1    representative?
09:41:47   2    A.        I'm sorry, I misunderstood you.
09:41:48   3    The particular sample that I have
09:41:48   4    drawn, well there's no way to compare
09:41:48   5    a sample to the population.  That you
09:41:53   6    know, even in the context of the
09:41:55   7    survey research that I was just
09:41:56   8    describing, no survey company takes
09:41:59   9    the survey they have conducted and
09:42:01   10   goes and compares it to the
09:42:02   11   population.  Because again you run
09:42:04   12   into the exact same problem.  That you
09:42:06   13   --- you would end up having to speak
09:42:08   14   to every person in the United States.
09:42:10   15           In much the same way, the
09:42:12   16   sample of maps, there's no way to
09:42:14   17   verify that that particular sample of
09:42:20   18   maps matches the universe of maps
09:42:21   19   because lots of researchers here and
09:42:22   20   in other places have noted that there
09:42:23   21   are more maps than there are atoms in
09:42:26   22   the known universe.  And so what we
09:42:28   23   have to rely on is rigorous
09:42:33   24   mathematical proofs, small scale
09:42:35   25   applications where we can verify that
```

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09:42:36    1    the sample is producing a
09:42:38    2    representative sample of the
09:42:39    3    population.
09:42:40    4    Q.      Did you discuss the target
09:42:42    5    distribution in your report?
09:42:46    6    A.      I think what you mean by the
09:42:48    7    ---- well I think what you mean by the
09:42:50    8    target distribution is the universe of
09:42:53    9    possible maps.  Is that what you're
09:42:56   10    talking about?
09:42:57   11    Q.      I'm just trying to figure out,
09:43:01   12    how are you judging success at whether
09:43:01   13    you are converging to whatever your
09:43:01   14    target distribution is?  Even --- even
09:43:05   15    approximately.  How can you, and if
09:43:05   16    --- and if you can't do that, then how
09:43:07   17    can you be confident that you have in
09:43:09   18    fact a representative sample?
09:43:10   19    A.      Yes, so this is a really
09:43:12   20    important question in --- in not only
09:43:15   21    this context, but in the study of
09:43:17   22    statistics more generally.  And ---
09:43:19   23    and what we do is we rely on these
09:43:21   24    mathematical proofs and these small
09:43:26   25    scale replications to assure us ---
```

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```
09:43:27    1   and other principles in statistics
09:43:29    2   that assure us that the sample we've
09:43:31    3   drawn is --- is representative of the
09:43:33    4   broader population.
09:43:34    5   Q.      So what convergent statistics
09:43:41    6   were you using here?
09:43:43    7   A.      I'm sorry, I --- I'm sorry.
09:43:43    8   I'm not sure what you're getting at.
09:43:45    9   Q.      Now you had to rely on certain
09:43:47   10   electoral data in your reporting
09:43:51   11   analysis.
09:43:52   12          Correct?
09:43:53   13   A.      That's correct.
09:43:53   14   Q.      Okay.
09:43:54   15   How confident are you in the electoral
09:43:57   16   data you used?
09:43:59   17   A.      I'm quite confident.
09:44:00   18   Q.      In your report, you say that
09:44:01   19   Congressional District 16 sometimes
09:44:03   20   had a Democratic advantage in the 11
09:44:08   21   elections in your data set.
09:44:09   22          Do you recall that?
09:44:10   23   A.      So I think that the question
09:44:11   24   you're asking arises from a
09:44:14   25   misunderstanding between what I write
```

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09:44:14    1    in my report and what Professor Duchin
09:44:19    2    thinks I put in my report, so ---.
09:44:19    3    Q.      Can you just answer my question
09:44:21    4    first?  Because I think my question
09:44:22    5    was a yes or no question?
09:44:24    6    A.      I'm --- can you repeat the
09:44:25    7    question?
09:44:25    8    Q.      Sure.  You say in your report
09:44:27    9    that Congressional District 16
09:44:29   10    sometimes had a Democratic advantage
09:44:33   11    in the 11 elections in your dataset.
09:44:35   12            Correct?
09:44:35   13    A.      So the reason that I needed to
09:44:38   14    elaborate was there are 17 elections,
09:44:40   15    not 11 in the dataset.
09:44:41   16    Q.      Okay.
09:44:42   17            Nonetheless, with that
09:44:43   18    correction it sometimes had a
09:44:48   19    Democratic advantage?
09:44:48   20            Right?
09:44:51   21    A.      That's correct.
09:44:51   22    Q.      Okay.
09:44:52   23            And Doctor Duchin examined this
09:44:54   24    in her report with a QC election
09:45:00   25    dataset and she disputes this finding?
```

606

```
09:45:01    1            Correct?
09:45:02    2    A.         Yes, and I was saying I think
09:45:06    3    the error is that I think Doctor
09:45:12    4    Duchin didn't realize that there were
09:45:15    5    17 elections in the index and not 11.
09:45:17    6    Q.      Okay.
09:45:17    7            How do you calculate
09:45:19    8    compactness?
09:45:19    9    A.         I use the Polsby-Popper
09:45:23   10    measure.
09:45:23   11    Q.      Did you use a particular
09:45:24   12    software?
09:45:25   13    A.         I used the computing program,
09:45:27   14    the computing language that's known as
09:45:29   15    R.  It's just the letter R.
09:45:32   16    Q.      Is that a particular --- so
09:45:34   17    that's a particular software package?
09:45:36   18    A.         It's a computer --- it's a
09:45:37   19    programming language is I think the
09:45:42   20    better way to describe it.
09:45:43   21    Q.      How did you choose a map
09:45:45   22    projection?
09:45:45   23    A.         I used the projection that is
09:45:49   24    most common in --- it's the same
09:45:53   25    projection that's used in like Google
```

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```
09:45:56    1    Maps, on our phones or Apple Maps on
09:46:03    2    our phones.  It's the --- it's the ---
09:46:04    3    it's that particular projection.  The
09:46:04    4    name of which is escaping me at the
09:46:06    5    moment.  Sorry.
09:46:06    6    Q.      Okay.
09:46:08    7            Let's talk about partisan
09:46:10    8    metrics.  You were asked what might
09:46:14    9    account for the difference between
09:46:15   10    your mean-median scores and other
09:46:17   11    scores.  And I believe you said it was
09:46:19   12    simply your choice of elections?  Do
09:46:22   13    you recall that?
09:46:24   14    A.      Yes.
09:46:24   15    Q.      Isn't it true that you used an
09:46:26   16    average vote index?
09:46:28   17    A.      Yes, that's correct.  I believe
09:46:29   18    I said that in my --- in my Direct
09:46:33   19    Testimony.
09:46:33   20    Q.      I believe you did.  Are you
09:46:33   21    representing that computing the
09:46:36   22    metrics on this average vote index
09:46:37   23    will give the same answer as computing
09:46:40   24    it separately and then averaging it?
09:46:41   25    A.      No, I was not intending to
```

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```
09:46:44    1    represent that at all.  You might get
09:46:45    2    a slightly different --- a slightly
09:46:47    3    different outcome.
09:46:48    4    Q.      You talk a little bit in your
09:46:54    5    report, I mean after you deal with the
09:46:54    6    first set of simulations, you then
09:46:58    7    look at some racial data.  Do you
09:47:00    8    recall that?
09:47:00    9    A.      Yes.
09:47:00   10    Q.      Okay.
09:47:01   11          And you rely on a 35 percent
09:47:07   12    demographic minority voting age
09:47:07   13    threshold in that analysis.  Do you
09:47:14   14    remember that?
09:47:14   15    A.      Yes.
09:47:14   16    Q.      Okay.
09:47:14   17          Are you aware of any literature
09:47:15   18    or any analysis of anyone other than
09:47:18   19    your own that a 35 percent minority
09:47:20   20    voting age population constitutes a
09:47:23   21    minority opportunity --- excuse me,
09:47:26   22    minority opportunity district?
09:47:26   23    A.      Well, I think that there is ---
09:47:30   24    there's not agreement in terms of what
09:47:33   25    threshold would be necessary.  Because
```

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09:47:35    1    it would require a specific analysis
09:47:37    2    of the area in question.  We would
09:47:41    3    need additional information about the
09:47:41    4    presence of racially polarized voting,
09:47:48    5    of crossover voting, all of these
09:47:50    6    factors that we've discussed.  And my
09:47:52    7    understanding in reading these reports
09:47:54    8    is there's no such analysis or
09:47:56    9    agreement, and so my choice of 35
09:47:59   10    percent was simply well, this seems to
09:48:01   11    be the case across these plans that
09:48:04   12    they're all kind of agreeing around 35
09:48:07   13    percent.  And so we have to pick some
09:48:10   14    number, and that seems to be a kind of
09:48:13   15    --- the plans all seem to move around
09:48:16   16    that particular value.
09:48:18   17    Q.      You're not representing that
09:48:20   18    the other plans just picked the
09:48:21   19    demographic threshold and that's what
09:48:23   20    they used?  As opposed to concluding
09:48:25   21    that after conducting a minority
09:48:27   22    opportunity analysis that in those
09:48:29   23    particular districts that was the
09:48:30   24    right --- or that was an appropriate
09:48:32   25    number?
```

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09:48:33   1    A.        No, what I'm saying is that
09:48:37   2    many of the proposal contain no
09:48:39   3    analysis of the presence or absence of
09:48:46   4    racially polarized voting.  Some of
09:48:47   5    them, nevertheless, make statements
09:48:47   6    about the presence or absence of
09:48:49   7    minority opportunity districts.  And
09:48:51   8    so, some value needs to be chosen and
09:48:54   9    35 percent kind of looks like what
09:48:57   10   most of these plans have --- have
09:48:59   11   settled around.
09:49:00   12   Q.        And just to be clear, you're
09:49:01   13   not representing that a 35 percent
09:49:04   14   threshold demographically stands in
09:49:07   15   for an actual analysis of electoral
09:49:09   16   effectiveness.
09:49:10   17             Correct?
09:49:11   18   A.        That's correct.  I --- I don't
09:49:12   19   think that we've seen such an
09:49:15   20   analysis.
09:49:15   21   Q.        Okay, thank you very much.
09:49:19   22   A.        Thank you.
09:49:19   23                       JUDGE MCCULLOUGH:
09:49:19   24             Thank you, Counsel.
09:49:20   25   We'll move to Congressman
```

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09:49:36   1   Reschenthaler's group. Thank you.

09:49:36   2   ATTORNEY HOLCUM:

            3   Your Honor, good

            4   evening. I will try to keep this

            5   brief.

            6   - - -

            7   CROSS EXAMINATION

            8   - - -

09:49:37   9   BY ATTORNEY HOLCUM:

09:49:37   10   Q.   So there was quite a bit of

09:49:40   11   discussion about the manner in which

09:49:42   12   you assessed the efficiency gap and

09:49:44   13   --- and the mean-median. And as I

09:49:47   14   understand it, you can correct me if

09:49:53   15   I'm wrong, but your assessment was

09:49:54   16   intended to give that raw figure some

09:49:57   17   context.

09:49:58   18   Is that correct?

09:49:59   19   A.   Yes.

09:49:59   20   Q.   Okay.

09:49:59   21   And why does that even need

09:50:01   22   context? Why do those measurements

09:50:03   23   need context?

09:50:07   24   A.   Well I think that we've seen a

09:50:09   25   lot of numbers being presented today.

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09:50:10	1	And I think that where, you know, this
09:50:15	2	Court is in the business of evaluating
09:50:18	3	what those numbers mean. And I think
09:50:20	4	that as a person who studies
09:50:24	5	quantitative data, it's really
09:50:29	6	important to be able to convey what
09:50:29	7	those numbers mean to a person who may
09:50:32	8	not be as familiar with those
09:50:33	9	calculations.
09:50:35	10	Q. And --- and you also study
09:50:36	11	politics? In fact that's your main
09:50:39	12	area of studies.
09:50:40	13	Is that correct?
09:50:41	14	A. Yes, that's correct.
09:50:42	15	Q. Political Science or politics
09:50:43	16	more generally. And so, you would
09:50:45	17	agree with me then that the
09:50:52	18	mean-median and --- and efficiency gap
09:50:55	19	based on your experience is, doesn't
09:50:57	20	account for a variety of factors that
09:50:59	21	in politics affect voter choice and
09:51:06	22	electoral outcomes?
09:51:06	23	A. Yes, I think that's absolutely
09:51:08	24	the case. Politics is a very messy
09:51:14	25	business.

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09:51:14    1    Q.        Right.  And so, I would just
09:51:15    2    want to run through a couple of things
09:51:15    3    and you can tell me a few things.
09:51:17    4    Whether you agree that they affect
09:51:18    5    voter choice and candidates, excuse
09:51:20    6    me, the manner in which elections go,
09:51:23    7    and then whether the efficiency gap
09:51:25    8    and the mean-median which you've heard
09:51:28    9    about all day whether they account for
09:51:30   10    it at all.  Whether they're weighted
09:51:32   11    in in any fashion.
09:51:34   12              So incumbency, is that part of
09:51:37   13    the analysis?
09:51:38   14    A.        So it's not directly a part of
09:51:40   15    the computation.  It's like, I suppose
09:51:42   16    you could say a kind of second orderly
09:51:45   17    impacts it and that all these measures
09:51:47   18    are using the votes that people cast.
09:51:49   19    And you know, people use a variety of
09:51:52   20    factors in determining how they vote.
09:51:53   21    Q.        Right.  But there's, it's not a
09:52:03   22    weighted, you know, factor?  It's not
09:52:03   23    part of the equation?  It's not a
09:52:03   24    separat input so to speak.
09:52:03   25              Is that correct?
```

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09:52:03    1    A.      That's correct.

09:52:03    2    Q.      Okay.

09:52:04    3    A.      It's not a parameter in the

09:52:05    4    calculation.

09:52:06    5    Q.      Right.  And based on your

09:52:08    6    scholarship, your extensive

09:52:10    7    publications and if you'll --- I saw

09:52:12    8    that you've written a little bit about

09:52:14    9    campaign finance and --- and donor

09:52:14   10    behavior.

09:52:14   11            Is that correct?

09:52:14   12    A.      That's correct, yes.

09:52:26   13    Q.      Would you agree with me that

09:52:28   14    the ability to raise funds can affect

09:52:32   15    election results?

09:52:32   16    A.      Yes.

09:52:32   17    Q.      And you'd agree with me that it

09:52:35   18    can affect it on a congressional

09:52:35   19    level?

09:52:36   20    A.      Yes, absolutely.

09:52:36   21    Q.      And it could cause differences

09:52:38   22    between statewide performance and

09:52:41   23    congressional performance?

09:52:43   24    A.      Yes.

09:52:43   25    Q.      And is that part of the
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09:52:45    1    analysis in mean-median and, excuse
09:52:47    2    me, the efficiency gap?
09:52:49    3    A.      Again,   no.   It's not a
09:52:51    4    parameter that's used in the
09:52:53    5    calculation of those metrics.
09:52:59    6    Q.      Okay.
09:53:00    7    So how about just the degree to which
09:53:04    8    voters in that state split their vote?
09:53:07    9    Vote splitting, I'm sure you're
09:53:08   10    familiar with that content ---
09:53:08   11    concept, excuse me?
09:53:11   12            Right?
09:53:11   13    A.      I am familiar, yes.   I'm
09:53:18   14    familiar with that.
09:53:18   15    Q.      And that can, and is that part
09:53:18   16    of the analysis?  A lot of times then
09:53:20   17    I suppose that given the statewide
09:53:24   18    role offices that's somewhat part of
09:53:24   19    the analysis.  But on a localized
09:53:26   20    level, is that part of the analysis?
09:53:29   21    A.      No.  So again, it's going to
09:53:31   22    factor in the probability or the
09:53:32   23    likelihood of a voter splitting their
09:53:35   24    --- splitting their ticket.
09:53:35   25    Q.      Okay.
```

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09:53:44    1           So how about --- and would you
09:53:44    2    agree with me that whether or not a
09:53:47    3    state has state --- straight ticket
09:53:50    4    voting affects down ballot
09:53:57    5    performance?
09:53:58    6    A.       Yes.   I think there's a good
09:53:59    7    bit of research that shows that.
09:54:01    8    Q.       And just to clarify by down
09:54:03    9    ballot, I mean anything below what is,
09:54:03   10    you know, for that year the top
09:54:03   11    office.
09:54:08   12           Correct?   So essentially every
09:54:10   13    year Congress in Pennsylvania at least
09:54:11   14    would be down ballot.
09:54:12   15           Is that correct?
09:54:12   16    A.       Yes.   I mean you can draw
09:54:12   17    particular thresholds about what is or
09:54:13   18    is not down ballot.   But I understand
09:54:13   19    what you're getting at.
09:54:18   20    Q.       Okay.
09:54:18   21           And so, are you aware that in
09:54:20   22    Pennsylvania the 2020 election was the
09:54:24   23    first one that was conducted with no
09:54:27   24    straight party ticket?   No straight
09:54:29   25    party voting at all?
```

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09:54:31    1    A.         I was not aware of that, but I
09:54:33    2    trust that that is the case.
09:54:35    3    Q.         And would you think that that
09:54:37    4    --- that might and would you think,
09:54:39    5    again based on your experience and
09:54:40    6    having studied this field, that that
09:54:43    7    is likely to affect the outcome,
09:54:47    8    likely to have affected it in 2020 and
09:54:50    9    is likely to affect it moving forward?
09:54:52   10    A.         It certainly could, yes.
09:54:53   11    Q.         Okay.
09:54:58   12               So I mean, I lost count frankly
09:54:59   13    but we went through a host of factors
09:55:03   14    that aren't factors in either of those
09:55:05   15    equations.
09:55:08   16               Right?  Whether mean-median or
09:55:11   17    efficiency gap?
09:55:12   18    A.         Yes.
09:55:12   19    Q.         And so the whole point of both
09:55:16   20    of these is to do what exactly?  Both
09:55:19   21    of these measurements?  To predict the
09:55:20   22    future?
09:55:21   23    A.         If I could do that, I wouldn't
09:55:29   24    be here and I'd be much more wealthy.
09:55:29   25    The purpose of --- the purpose of
```

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09:55:32    1    these calculations is to --- to say,
09:55:34    2    well take all of the information, all
09:55:35    3    of the factors that you've described,
09:55:35    4    incumbency, campaign finance, the
09:55:39    5    particular campaigning that goes on
09:55:41    6    around these races.  Take them as
09:55:44    7    given.  Whatever they happen to be,
09:55:47    8    people cast their votes the, you know,
09:55:51    9    the way that they do.  And given that
09:55:52   10    those --- given the way that those
09:55:53   11    votes have been cast, how to have
09:55:55   12    those votes translated into seats?
09:55:58   13    Now of course in these cases, we're
09:55:59   14    not looking at the actual
09:56:01   15    congressional races.  We're looking at
09:56:01   16    proxies for those races by looking at
09:56:07   17    the state wide elections.  And so,
09:56:08   18    that's one of the reasons why I
09:56:09   19    described that I think averages are
09:56:11   20    better because each of these elections
09:56:11   21    is really different from a
09:56:14   22    congressional race.  And nevertheless,
09:56:15   23    these --- these measures are trying to
09:56:17   24    capture on average how our votes
09:56:20   25    translating into seats, or might
```

619

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09:56:24    1    translate into seats.
09:56:25    2    Q.       Right.  Actually a couple of
09:56:27    3    other things I missed.  Does it
09:56:29    4    account for under vote efficiency gap
09:56:31    5    or mean-median?  Which to clarify
09:56:34    6    again, and you can correct me if I'm
09:56:36    7    wrong, under vote is the concept that
09:56:38    8    people vote or tend to skip certain
09:56:41    9    offices as they move down the ballot.
09:56:43   10             Correct?  Right?
09:56:45   11    A.       It --- it can account for it in
09:56:48   12    that it accounts for turnout.  So it
09:56:51   13    could --- it can account for the fact
09:56:53   14    that some races are less, you know,
09:56:55   15    have lower votes than other races.
09:56:59   16    But ---.
09:57:00   17    Q.       But it doesn't account for the
09:57:02   18    under vote of offices at which aren't
09:57:04   19    part of the county.
09:57:04   20             Correct?
09:57:04   21    A.       That ---.
09:57:06   22    Q.       So like it doesn't count for
09:57:09   23    the under vote for congress and ---
09:57:13   24    correct?
09:57:13   25    A.       That's correct.  It only is ---
```

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09:57:13    1    it's only accounting for the elections
09:57:14    2    that are being used.
09:57:14    3    Q.        And we're attempting to
09:57:16    4    ascertain the partisan breakdown of
09:57:17    5    congressional seats.
09:57:17    6            Correct?
09:57:20    7    A.        Yes, that's correct.
09:57:22    8    Q.        Okay.
09:57:22    9            And a couple of other questions
09:57:23   10    and I'll be done.  And so, the whole
09:57:25   11    concept of mean-median and --- and
09:57:27   12    efficiency gap, it's premised on the
09:57:30   13    notion that majority of votes having
09:57:34   14    been cast in a statewide race for a
09:57:38   15    party necessarily must translate to a
09:57:42   16    majority of seats, congressional seats
09:57:46   17    that have been apportioned to that
09:57:46   18    party?
09:57:49   19            Correct?  Or to that state,
09:57:50   20    excuse me.
09:57:54   21    A.        Yeah, I think --- that, I think
09:57:54   22    more or less that's --- that's
09:57:55   23    accurate.  There are, I mean there are
09:57:56   24    subtle differences in how they are,
09:57:59   25    you know, that --- that each of these
```

621

```
09:58:00    1   are calculated and they have slightly

09:58:03    2   different interpretations.  But I

09:58:06    3   think you're capturing the kind of

09:58:06    4   broader idea of --- of what these

09:58:07    5   measures are doing.

09:58:08    6   Q.       Okay.

09:58:09    7            And so you've studied, and I

09:58:10    8   noticed one of your publications has

09:58:12    9   to do with the country's founding, our

09:58:17   10   country's founding?

09:58:17   11   A.       Yes.

09:58:17   12   Q.       Correct?

09:58:18   13   A.       Yes.

09:58:18   14   Q.       Okay.

09:58:18   15            So you're familiar with the

09:58:18   16   parliamentary system?

09:58:18   17            Right?

09:58:27   18   A.       I --- I am, yes.

09:58:27   19   Q.       And can you tell us a little

09:58:27   20   bit about that?

09:58:29   21   A.       Well so, I --- I mean, we could

09:58:29   22   sit here for hours.

09:58:34   23   Q.       So --- so basically, for most

09:58:35   24   --- most of the way it works is you

09:58:36   25   vote for the party and the --- the
```

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```
09:58:37    1    number of seats in parliament are

            2    assigned based on how, what percentage

            3    of the vote that party got in an

            4    election.

            5            Correct?  Basically.

            6            Right?

            7    A.      With some ---.

            8    Q.      With variations between

            9    countries?

09:58:45   10    A.      There's lots of variations, but

09:58:46   11    what you're getting at is what's

09:58:47   12    called a PR system.

09:58:50   13    Q.      Right.  So what it really

09:58:51   14    sounds like is an attempt to replicate

09:58:54   15    the parliamentary system.

09:58:54   16            Right?

09:58:59   17    A.      I --- I wouldn't go that far in

09:59:00   18    saying that.

09:59:00   19    Q.      Broadly.  I mean, it's not like

09:59:03   20    a parliamentary sort of type approach,

09:59:03   21    people voting for parties as opposed

09:59:05   22    to people?

09:59:06   23    A.      It is not accounting for the

09:59:08   24    particular candidates if that's what

09:59:10   25    you're getting at.
```

623

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09:59:11    1    Q.       Right.
09:59:12    2    A.       It's looking at votes for the
09:59:13    3    Democratic party or the Republican
09:59:15    4    party.
09:59:16    5    Q.       Right.  And do people vote for
09:59:18    6    parties or for people for Congress?
09:59:21    7    A.       It depends on who you ask I
09:59:22    8    suppose.
09:59:23    9    Q.       What's on the ballot?
09:59:24   10    A.       It also depends on the state,
09:59:26   11    but sometimes the candidate's name and
09:59:28   12    their party affiliation.
09:59:29   13    Q.       Right.  But their name's always
09:59:31   14    on there though.
09:59:31   15             Right?
09:59:31   16    A.       That is correct.
09:59:34   17    Q.       That --- that is universally
09:59:35   18    true?
09:59:35   19    A.       That is --- that is correct,
09:59:36   20    yes.
09:59:36   21    Q.       Okay.
09:59:43   22                      ATTORNEY HOLCUM:
09:59:43   23                      No further questions.
09:59:44   24                      JUDGE MCCULLOUGH:
09:59:44   25                      Okay, thank you,
```

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09:59:46	1	Counsel. I think Mr. Senoff for
09:59:47	2	Representative Clinton and the
09:59:47	3	Democratic caucus.
10:00:12	4	ATTORNEY BARR:
10:00:14	5	I apologize in advance.
10:00:15	6	I have my computer.
10:00:15	7	JUDGE MCCULLOUGH:
10:00:15	8	You still get the same
10:00:17	9	amount of time.
10:00:18	10	ATTORNEY SENOFF:
10:00:18	11	Thank you.
10:00:18	12	JUDGE MCCULLOUGH:
10:00:18	13	Okay?
10:00:18	14	- - -
10:00:18	15	CROSS EXAMINATION
10:00:20	16	- - -
10:00:20	17	BY ATTORNEY SENOFF:
10:00:20	18	Q. Doctor Barber, good evening.
10:00:22	19	Are you familiar with the phrases
10:00:23	20	cracking and packing?
10:00:27	21	A. I am, yes.
10:00:27	22	Q. And are you familiar with their
10:00:29	23	use in the gerrymander redistricting
10:00:33	24	sense?
10:00:35	25	A. Yes.

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10:00:35    1    Q.      Can you explain for us how you

10:00:38    2    understand them?

10:00:39    3    A.      So in general, when people

10:00:41    4    refer to cracking what they are

10:00:45    5    talking about is taking a group of

10:00:49    6    voters who are geographically

10:00:52    7    concentrated in some way or another

10:00:54    8    and splitting them across a variety of

10:00:58    9    districts so as to minimize the

10:01:03   10    possibility or probability of a

10:01:08   11    district electing the candidate that

10:01:11   12    favors --- or that would align with

10:01:11   13    that, with their party.  So that would

10:01:11   14    be the cracking.

10:01:21   15           Packing would be kind of the

10:01:22   16    opposite of that.  The idea that you

10:01:23   17    take voters that are all very

10:01:25   18    concentrated and place them together

10:01:27   19    in a district so as to concentrate

10:01:30   20    them in as few districts as possible.

10:01:33   21    Q.      Okay.

10:01:34   22           And so how does --- how do

10:01:36   23    those concepts, cracking and packing

10:01:38   24    when it comes to redistricting and

10:01:40   25    gerrymandering, affect what you've
```

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10:01:44    1    described here today as political
10:01:47    2    geography?  Or vice versa?  How does
10:01:50    3    political geography affect cracking
10:01:55    4    and packing?
10:01:55    5    A.        So it really depends on how
10:01:57    6    voters are disbursed across the state.
10:02:00    7    And so, if you have a pretty even
10:02:02    8    distribution of voters in terms of the
10:02:04    9    distribution of Republicans and the
10:02:05   10    distribution of Democrats, then it
10:02:07   11    become quite difficult to do either of
10:02:10   12    those things.  As opposed to if you
10:02:13   13    have a state in which voters are
10:02:17   14    geographically concentrated, that
10:02:21   15    would make it obviously then easier.
10:02:24   16    The other thing I would add is that
10:02:29   17    one party's cracking is often the
10:02:32   18    other party's packing.  And so you
10:02:35   19    know, it often depends on the
10:02:36   20    prospective of the person you're
10:02:38   21    talking to as to whether something is
10:02:40   22    or is not cracking or packing.
10:02:42   23    Q.        And when you say one party's
10:02:45   24    cracking is another party's packing,
10:02:47   25    you just mean that if one party would
```

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10:02:49    1   prefer to pack a particular area that

10:02:52    2   might result in the cracking of that

10:02:55    3   area when compared to the voting

10:02:57    4   registration of the opposite party in

10:03:02    5   the same area?

10:03:06    6   A.      Yes.  I think that's right.  I

10:03:07    7   --- the only thing I would add is that

10:03:09    8   it, you know, it's not --- there's no

10:03:12    9   kind of bright line on what would or

10:03:17   10   would not constitute cracking or

10:03:19   11   packing.

10:03:20   12   Q.      Okay.

10:03:20   13          If we drew a circle around the

10:03:23   14   City of Pittsburgh within Allegheny

10:03:25   15   County and assigned it one

10:03:27   16   Congressional district, would you

10:03:33   17   consider that to be packing?

10:03:34   18   A.      So I think this is an excellent

10:03:36   19   example because sometimes what might

10:03:38   20   be called intentional partisan

10:03:40   21   gerrymander might actually be the

10:03:42   22   result of the combination of the

10:03:44   23   geography of the state and neutral

10:03:44   24   redistricting criteria.

10:03:47   25   So the example you're giving is really
```

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10:03:47   1   excellent because the redistricting
10:03:54   2   criteria might say don't split
10:03:56   3   Pittsburgh.  What that's --- the
10:03:56   4   impact of that, as I had said earlier,
10:03:59   5   is that you're going to have a
10:04:00   6   district that's going to be intensely
10:04:03   7   Democratic.  And so one prospective
10:04:06   8   would look at that and say that's
10:04:07   9   packing, that's clearly
10:04:08   10  gerrymandering.  And the other person
10:04:12   11  might say oh no, that's not packing at
10:04:15   12  all.  That's just following the
10:04:16   13  neutral redistricting criteria.
10:04:17   14  Q.      And so, you would agree with me
10:04:19   15  then that these concepts, these
10:04:21   16  cracking and packing concepts can
10:04:23   17  occur intentionally or by accident?
10:04:32   18  A.      Yes.  I agree.  I think that's
10:04:34   19  definitely the case.
10:04:35   20  Q.      And they can be with ill-will
10:04:37   21  or not ill-will?
10:04:43   22  A.      Yes, I think that's the case.
10:04:44   23  Q.      And so --- I know I'm, you've
10:04:44   24  been here for quite a few hours.  So
10:04:44   25  you know that I sound like a broken
```

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```
10:04:46   1    record when I ask you this question,
10:04:48   2    but up didn't consider voter
10:04:51   3    registration when you performed your
10:04:52   4    analysis.
10:04:52   5              Correct?
10:04:56   6    A.        So when --- when you say voter
10:04:58   7    registration, you mean the like
10:04:59   8    declared party of the --- of the
10:05:01   9    individual voters?
10:05:03   10   Q.        Correct.
10:05:04   11   A.        That's correct.  I did not
10:05:06   12   include --- incorporate that.
10:05:10   13   Q.        And when your analysis, your
10:05:11   14   computer analysis was run, there was
10:05:13   15   no other partisan data, including
10:05:15   16   voter registration, included in the
10:05:20   17   analysis that you used to draw the
10:05:23   18   map?  Create the plan?
10:05:28   19   A.        The --- I'm sorry, the ---?
10:05:28   20   Q.        The simulations, yeah.
10:05:30   21   A.        The --- that's correct.  The
10:05:30   22   simulations had no information about
10:05:33   23   the votes cast or the partisan
10:05:37   24   registration of individual voters.
10:05:40   25   Q.        Okay.
```

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10:05:41    1              And so, let me ask you a
10:05:43    2     question.  Would you agree with me
10:05:44    3     that the partisan identification of a
10:05:50    4     particular voter is likely the best
10:05:53    5     predictor of that person's voting
10:06:02    6     behavior?
10:06:03    7     A.        I think that that is an
10:06:04    8     accurate assessment of the research on
10:06:17    9     party identification.
10:06:17   10     Q.        And let me ask you, in --- in
10:06:17   11     light of that and in light of the fact
10:06:17   12     that you didn't use the voter
10:06:19   13     registration data in your simulation,
10:06:19   14     what was or the --- was the goal of
10:06:22   15     your simulations to try and generate
10:06:24   16     random plans that would create
10:06:30   17     Congressional districts that meet what
10:06:32   18     we've referred to as the big six
10:06:36   19     criteria, but not to favor any party?
10:06:42   20     A.        I think that's a good
10:06:43   21     description of what's going on.  It's
10:06:45   22     --- we're saying let's --- we --- we
10:06:48   23     want a set of maps that we know with
10:06:50   24     certainty the criteria that were used,
10:06:51   25     and we agree that those criteria
```

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10:06:53   1    should be used in the drawing of maps.
10:06:56   2    And then given that that's the case,
10:06:59   3    we want to see what the simulated maps
10:07:02   4    produce.
10:07:02   5    Q.       And is it fair to say that the
10:07:04   6    goal of the simulated maps then would
10:07:07   7    be to try and produce as many, I know
10:07:10   8    there's different words for this, but
10:07:12   9    competitive districts or balance
10:07:14   10   districts?  Districts where, you know,
10:07:18   11   it's not 90 percent one party and 10
10:07:21   12   percent the other party?
10:07:24   13   A.       It's not --- sorry.  So I --- I
10:07:27   14   want to make sure I understand your
10:07:29   15   question.  You're saying it's the
10:07:30   16   intention of the simulations to
10:07:32   17   produce those?
10:07:34   18   Q.       Yes.  So in other words, is it
10:07:34   19   simply the intention of the simulation
10:07:37   20   to, and I don't mean crack but to
10:07:42   21   divide the state into 17 Congressional
10:07:46   22   districts that meet the big six
10:07:48   23   criteria and stop there regardless of
10:07:49   24   what the competitive nature of those
10:07:52   25   districts might be in any given
```

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10:07:54    1    Congressional election?
10:07:56    2    A.      I --- I see what you're saying.
10:07:57    3    I think that's --- I think that's
10:07:58    4    accurate.  The intention is to draw
10:08:01    5    districts using only the criteria that
10:08:06    6    we have discussed, and then after the
10:08:07    7    fact we can evaluate those plans on
10:08:10    8    all these other criteria that you're
10:08:12    9    describing.  The competitiveness or
10:08:15   10    the partisan lean or, you know, you
10:08:17   11    could, whatever criteria you wanted,
10:08:18   12    you could apply that to the
10:08:20   13    simulations post hoc and see how they
10:08:27   14    measure.
10:08:27   15    Q.      And so, in thinking about your
10:08:30   16    simulations and the --- what the
10:08:35   17    simulation produced, is it fair to say
10:08:39   18    that the simulation produced 17 random
10:08:42   19    Congressional districts that met these
10:08:47   20    six criteria?
10:08:48   21    A.      Well, it produces 50,000 of
10:08:50   22    them, but yes.  I think that's ---.
10:08:50   23    Q.      Well yes.  In other words, it
10:08:52   24    produced 50,000 versions of a 17
10:08:56   25    district map that meets the big six
```

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```
10:09:00    1    criteria?
10:09:02    2    A.        Yes, that's correct.
10:09:04    3    Q.        And would you --- did --- did I
10:09:06    4    hear you correctly earlier when you
10:09:09    5    said you had not published any
10:09:19    6    scholarly works on gerrymandering?
10:09:20    7    A.        So I do not have any published
10:09:22    8    research in --- in this area.  I have,
10:09:23    9    as I said I --- I'm very familiar with
10:09:25   10    the literature.  I teach about this in
10:09:28   11    my congressional representation class.
10:09:31   12    And then as I said, a lot of
10:09:32   13    experience in doing this in --- on the
10:09:34   14    litigation side of things.
10:09:36   15    Q.        And in 2015, isn't it accurate
10:09:39   16    that there was a book published by the
10:09:41   17    Cambridge University press in which
10:09:43   18    you contributed a chapter?
10:09:48   19    A.        Yes.
10:09:49   20    Q.        What was that book called if
10:09:51   21    you recall?
10:09:51   22    A.        That is stretching my memory.
10:09:54   23    I --- I don't recall the exact, the
10:09:57   24    title of it.
10:09:57   25    Q.        Okay.
```

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`10:09:58`   1   And if I suggested to you that

`10:10:01`   2   the book was called Solutions to

`10:10:03`   3   Political Polarization in America,

`10:10:03`   4   would that refresh your recollection?

`10:10:11`   5   A.   That sounds correct, yes.

`10:10:13`   6   Q.   And if I suggested to you that

`10:10:13`   7   you wrote the second chapter, you

`10:10:16`   8   co-wrote it with another gentleman

`10:10:18`   9   Nolan McCarty, is that accurate?

`10:10:18`   10   A.   Yes, that's correct.

`10:10:19`   11   Q.   And the title of that chapter

`10:10:22`   12   was Causes and Consequences of

`10:10:28`   13   Polarization.

`10:10:28`   14   Correct?

`10:10:28`   15   A.   Yes, that's correct.

`10:10:29`   16   Q.   So in --- in that chapter, is

`10:10:31`   17   it accurate that you had an entire

`10:10:34`   18   section devoted to gerrymandering?

`10:10:38`   19   A.   Yes, there is a section there

`10:10:41`   20   that discusses gerrymandering.

`10:10:42`   21   Q.   And in that section, am I

`10:10:47`   22   correct that you concluded that the

`10:10:53`   23   data that you had collected did not

`10:10:54`   24   support the argument that

`10:11:03`   25   gerrymandering is producing districts

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10:11:05    1    that contain heavy partisan

10:11:08    2    majorities, thereby leading to extreme

10:11:10    3    representatives.  Rather more of the

10:11:13    4    observed polarization can be explained

10:11:16    5    by the difference between the parties

10:11:17    6    in relatively moderate and competitive

10:11:20    7    districts.

10:11:21    8              Is that accurate?

10:11:22    9    A.        Yes, I think that's --- I think

10:11:24   10    that's a very accurate depiction of

10:11:27   11    the contemporary political landscape.

10:11:29   12    Q.        And so, is it your testimony

10:11:31   13    then that the creation of 17 districts

10:11:35   14    randomly that met the big six criteria

10:11:39   15    and also happen to be all competitive

10:11:43   16    or majority competitive might result

10:11:46   17    in a more polarized Congressional

10:11:53   18    delegation from Pennsylvania to

10:11:55   19    Washington than a 50/50 split?

10:11:59   20    A.        So I --- I think what we're

10:12:01   21    trying to communicate in that article

10:12:03   22    is that one of the contentions that's

10:12:12   23    often used or one of the things that

10:12:12   24    people often contend is that one of

10:12:13   25    the reasons for why politics is so
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10:12:17   1    polarized today is because of

10:12:18   2    gerrymandering.  And our argument in

10:12:20   3    that article is that that is, that's

10:12:21   4    not the case.  The data do not support

10:12:23   5    that conclusion.

10:12:24   6          And one of the reasons for that

10:12:26   7    is what we do is we say well let's

10:12:27   8    look at how --- how do Democrats

10:12:29   9    elected from overwhelmingly Democratic

10:12:33   10   districts, how do they vote compared

10:12:35   11   to Democrats who are elected from very

10:12:38   12   competitive districts?  And there are

10:12:39   13   differences, but they're not nearly as

10:12:45   14   large as Democrats and Republicans who

10:12:45   15   are elected from districts that

10:12:49   16   actually look quite similar.  And so

10:12:50   17   our conclusion there is that the

10:12:53   18   partisan composition of the district

10:12:53   19   has less of an impact on the behavior

10:12:56   20   of a legislator than the partisan

10:13:00   21   affiliation of the legislator has on

10:13:03   22   their behavior.

10:13:04   23   Q.       And, but you know, you agreed

10:13:06   24   with me earlier that the partisan

10:13:08   25   identification of a voter is more
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10:13:11    1    predictive of the voter's voting
10:13:14    2    habits.
10:13:14    3           Correct?
10:13:16    4    A.      Yes, that is a correct.
10:13:16    5    Q.      And in fact, that conclusion is
10:13:18    6    in the article before the
10:13:23    7    gerrymandering, in that chapter before
10:13:23    8    gerrymandering section.
10:13:23    9           Correct?
10:13:26   10    A.      Yes, that's correct.
10:13:27   11    Q.      And yet, given that and given
10:13:29   12    the fact that there are, you would
10:13:31   13    agree with me there, you testified
10:13:32   14    there's 50,000 different ways to ---
10:13:35   15    to cut this map and still meet the
10:13:38   16    requirements, don't you think it ---
10:13:40   17    well.  Isn't it worth while to
10:13:42   18    consider that not post hoc, but while
10:13:47   19    you are actually creating the map?  Or
10:13:50   20    at least --- let me rephrase that
10:13:52   21    question, I apologize.
10:13:53   22           At least prior to enacting the
10:13:57   23    map, don't you think it would be
10:13:58   24    better to generate perhaps your ---
10:14:02   25    one of your 50,000 maps and then super
```

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10:14:06    1    impose upon it the party affiliation
10:14:14    2    of the various voters in those
10:14:14    3    districts?
10:14:17    4    A.       So I ---.
10:14:19    5    Q.       What you described as post hoc?
10:14:19    6    A.       So are you --- are you saying
10:14:19    7    to then look, so look at how a map
10:14:24    8    performs in terms of the partisanship
10:14:29    9    of the districts that are ---.
10:14:30   10    Q.       After you generated it using
10:14:31   11    your simulation?
10:14:32   12    A.       Yes, I --- I think that's an
10:14:34   13    important step.  I --- I think I do
10:14:35   14    that in the --- in the report.
10:14:36   15    Q.       And so, once you do that, is it
10:14:40   16    your opinion that given what we've
10:14:43   17    discussed about polarization and party
10:14:48   18    performance by voters, is it in your
10:14:52   19    opinion better or worse to have
10:14:55   20    moderate or competitive districts
10:14:57   21    versus some districts that are
10:15:00   22    completely one way or the other?
10:15:04   23    A.       I --- I think in my report I
10:15:08   24    say that highly competitive districts
10:15:11   25    are --- are a good thing.  For, you
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10:15:12 1   know, for the Democratic process.

10:15:14 2   That having a number of competitive

10:15:16 3   districts is good because legislators

10:15:20 4   are more responsive when they're, you

10:15:23 5   know, they're in danger of losing

10:15:25 6   their seat.

10:15:30 7   ATTORNEY BARR:

10:15:30 8   Thank you, Doctor. I

10:15:31 9   don't have any further questions.

10:15:32 10   JUDGE MCCULLOUGH:

10:15:32 11   Thank you, Counsel. We

10:15:33 12   have the Senate Democratic

10:15:36 13   Intervenors, Attorney Attisano.

10:15:36 14   - - -

10:15:36 15   CROSS EXAMINATION

10:15:55 16   - - -

10:15:55 17   BY ATTORNEY ATTISANO:

10:15:59 18   Q.   You're familiar with the 2011

10:16:02 19   map, congressional districting map

10:16:03 20   from Pennsylvania.

10:16:03 21   Correct?

10:16:04 22   A.   Yes.

10:16:04 23   Q.   How are you familiar with it?

10:16:07 24   A.   It's --- it was, you know, it

10:16:09 25   was a very big case which garnered

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10:16:13   1    National attention.  And so, I'm aware
10:16:15   2    of it in that way.  I'm aware that
10:16:17   3    it's been made, you know, it's been
10:16:20   4    referenced in a number of occasions in
10:16:23   5    the various reports that have been
10:16:27   6    submitted in this case.  And I think
10:16:28   7    more broadly and among political
10:16:31   8    scientists who study these sorts of
10:16:35   9    things, it's a pretty noteworthy ---
10:16:38  10    it's a pretty noteworthy example of
10:16:38  11    redistricting litigation.  Or it was
10:16:45  12    subject to redistricting litigation.
10:16:45  13    Q.       Did you run it through your
10:16:46  14    analysis to get a baseline of the
10:16:48  15    accuracy of your analysis?
10:16:52  16    A.       I did not.  I did not
10:16:54  17    incorporate that plan into my
10:16:58  18    analysis.
10:16:58  19    Q.       But, let me rephrase the
10:16:59  20    question.  Did you --- did you run it
10:17:00  21    at all through your analysis?  Not
10:17:02  22    whether you put it in your report or
10:17:05  23    not, did you run it at all through
10:17:09  24    your analysis?
10:17:10  25    A.       The 2011 map, no I did not.
```

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10:17:13    1    Q.        Why didn't you run it through
10:17:14    2    your analysis?
10:17:16    3    A.        It --- my objective was to
10:17:18    4    evaluate the HB-2146 map as well as
10:17:21    5    the maps that have been presented in
10:17:24    6    this particular case.  And so, I did
10:17:26    7    not see it as being particularly
10:17:29    8    beneficial to look at that map.
10:17:33    9    Q.        You gave certain opinions about
10:17:35   10    how many Democratic leaning districts
10:17:39   11    each map would yield.
10:17:40   12              Correct?
10:17:41   13    A.        Yes.
10:17:42   14    Q.        Okay.
10:17:43   15              So you agree if you ran the
10:17:45   16    2011 map through your analysis, you
10:17:48   17    could have seen how close your
10:17:50   18    analysis gets to actual reality of how
10:17:55   19    many districts a map yields?
10:17:57   20    You agree with that.
10:17:57   21              Right?
10:17:59   22    A.        I see --- I understand now what
10:18:06   23    you're asking, and yes that certainly
10:18:07   24    is a possibility.  You --- you could
10:18:08   25    have done that, yes.
```

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10:18:09    1    Q.        It's the only way you could
10:18:11    2    determine how accurate your analysis
10:18:17    3    is.
10:18:18    4              Correct?
10:18:18    5    A.        I don't think that's a correct
10:18:20    6    assessment.  I --- I don't want to
10:18:23    7    convey that these --- these indices
10:18:28    8    that are being used by a variety of
10:18:33    9    experts to predict the partisan lean
10:18:33   10    of these maps are perfect.  I think in
10:18:40   11    my report, I specifically include a
10:18:42   12    paragraph that says that that's not
10:18:43   13    the case.  These indices are --- are
10:18:45   14    estimates, and they're, you know,
10:18:46   15    estimates always contain uncertainty.
10:18:50   16    And so, you know, we're --- we're
10:18:52   17    estimating but we're obviously not
10:18:54   18    going to perfectly predict because
10:18:56   19    these are not Congressional elections
10:18:58   20    that are being used in these indices
10:19:06   21    by me or by others.  These are auditor
10:19:06   22    races or treasurer races, those ---
10:19:06   23    those sorts of things.
10:19:06   24    Q.        So we agree you can't predict
10:19:08   25    the future obviously.
```

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10:19:10    1            Correct?
10:19:10    2    A.      Correct.
10:19:10    3    Q.      But you can test your
10:19:12    4    methodology and your analysis against
10:19:17    5    what has already happened in the past.
10:19:19    6    You can do that.
10:19:20    7            Correct?
10:19:20    8    A.      Yes, you could.
10:19:21    9    Q.      And you decided not to do that
10:19:24   10    with the 2011 map when you could have.
10:19:24   11            Correct?
10:19:25   12    A.      That's correct.
10:19:27   13    Q.      Did you consider responsiveness
10:19:29   14    in your analysis?
10:19:34   15    A.      I have --- well I'm not sure
10:19:36   16    exactly what you mean by that.
10:19:38   17    Q.      So, are you familiar with the
10:19:41   18    concept of a winner bonus?
10:19:43   19    A.      Yes, I am.
10:19:44   20    Q.      Could you tell us what your
10:19:47   21    understanding of that is?
10:19:47   22    A.      So the idea is that in the
10:19:50   23    empirical --- in the empirical
10:19:55   24    literature, if we look at elections
10:19:57   25    over time it tends to be the case that
```

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10:19:58    1   the party that wins a majority of the

10:20:01    2   votes tends to win more seats than

10:20:05    3   their vote share would, if you took a

10:20:07    4   one to one comparison, it tends to be

10:20:11    5   a little higher than that.

10:20:14    6   Q.      Okay.

10:20:14    7           And are you aware that

10:20:16    8   responsiveness is how much a seat

10:20:19    9   chair changes as a function of a

10:20:22   10   change in vote share?  For example,

10:20:24   11   the steepness of the seat's votes

10:20:27   12   function is called its responsiveness.

10:20:30   13   Are you generally familiar with that

10:20:32   14   concept?

10:20:33   15   A.      Yes.

10:20:33   16   Q.      Okay.

10:20:33   17           And --- and so you --- you

10:20:34   18   didn't do any responsiveness analysis

10:20:37   19   in your overall analysis?

10:20:38   20           Is that correct?

10:20:41   21   A.      I don't think that that is an

10:20:43   22   accurate description.  I think the

10:20:45   23   analysis where I look at the

10:20:50   24   competitiveness of the districts, I

10:20:52   25   think that gets to this idea because
```

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10:20:55    1    if a --- if a plan is going to
10:20:59    2    responsive to voters, there needs to
10:21:01    3    be districts that can --- that can
10:21:03    4    change, that can switch parties.  The
10:21:04    5    districts that are out at the edges
10:21:06    6    aren't, you know, there's just no way
10:21:07    7    that those districts are ever going to
10:21:07    8    flip.  But these competitive districts
10:21:14    9    which I highlight, those are the
10:21:15   10    districts where you're going to see
10:21:18   11    turnover in terms of the party that
10:21:20   12    represents those seats.
10:21:21   13    Q.       And that's competitiveness
10:21:24   14    based on the relationship with those
10:21:28   15    maps and the 50,000 random maps your
10:21:34   16    logarithm generated.
10:21:34   17            Is that correct?
10:21:35   18    A.       No, I'm sorry.  I should
10:21:37   19    clarify.  That's simply looking at the
10:21:39   20    plan and how many districts in that
10:21:42   21    plan have a partisan index that is
10:21:49   22    close to .25.  So that's not drawing
10:21:51   23    any comparison to the simulations.
10:21:53   24    That's just saying across these
10:21:55   25    statewide races, how many districts
```

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10:22:05    1    are --- are close to .5, close to 50
10:22:05    2    percent?  That --- that's what I mean
10:22:05    3    when I am referring to
10:22:07    4    competitiveness.
10:22:07    5    Q.      Okay.
10:22:07    6            And let's talk about the 50,000
10:22:09    7    plans that your logarithm generated.
10:22:13    8    You told one of the attorneys that was
10:22:15    9    asking you questions that you did not
10:22:20   10    adhere to equal population and you had
10:22:22   11    a variance of 30 --- up to 3,800
10:22:23   12    people per district?
10:22:23   13            Correct?
10:22:30   14    A.      Yes, that's correct.
10:22:31   15    Q.      Okay.
10:22:31   16            And also that you did not do
10:22:32   17    your analysis to avoid the ward
10:22:35   18    splits.
10:22:35   19            Correct?
10:22:37   20    A.      That's correct.
10:22:37   21    Q.      And you agree that you chose a
10:22:41   22    compactness score that represented
10:22:43   23    districts that were less compact
10:22:45   24    compared to the compactness scores of
10:22:47   25    all the maps submitted in this
```

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10:22:50    1    litigation.
10:22:50    2            Correct?
10:22:51    3    A.      I would just clarify that I
10:22:53    4    don't --- the model does not --- you
10:22:57    5    don't tell the model to create a
10:22:59    6    particular compactness score.  The ---
10:23:00    7    you instruct the model to give
10:23:03    8    preference to the generation of
10:23:04    9    districts that are compact and each of
10:23:07   10    the 50,000 maps has a different
10:23:12   11    compactness score.  And so, I report
10:23:14   12    the --- the median of those 50,000
10:23:16   13    plans, but then also the full range.
10:23:18   14    And so there are some plans that have
10:23:19   15    much higher scores and there are some
10:23:21   16    plans that have lower scores.
10:23:23   17    Q.      Okay.
10:23:24   18            So when --- when we talk about
10:23:28   19    your 50,000 maps, it's just not
10:23:30   20    accurate to say that they meet the six
10:23:34   21    traditional redistricting principles?
10:23:37   22            Is that correct?
10:23:38   23    A.      I think aside from the
10:23:42   24    discussion we've had about equal
10:23:42   25    population and the reasons for needing
```

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10:23:45    1    to allow the model some amount of
10:23:48    2    deviation in terms of that criteria.
10:23:51    3    On the other criteria, I suppose like
10:23:56    4    setting aside wards in Philadelphia,
10:23:59    5    the model is meeting the criteria that
10:24:02    6    we're --- we've been discussing.
10:24:04    7    Q.        Do you agree that the need, the
10:24:06    8    constitutional requirement for equal
10:24:08    9    population will necessarily mean we
10:24:13   10    have certain county and municipal
10:24:14   11    splits.
10:24:15   12              Correct?
10:24:15   13    A.        Yes, I agree that that is going
10:24:18   14    to be the case.
10:24:19   15    Q.        And with respect to splitting
10:24:23   16    Pittsburgh, you spoke critically of
10:24:26   17    splitting Pittsburgh.
10:24:28   18              Correct?
10:24:28   19    A.        I indicated that I --- it to me
10:24:33   20    it's an unusual choice.
10:24:39   21    Q.        Communities of interests should
10:24:42   22    be considered when deciding which
10:24:44   23    municipalities to split.  You agree
10:24:46   24    with that.
10:24:46   25              Right?
```

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10:24:48    1    A.        I think it's one of the factors

10:24:51    2    that can be considered, but I think

10:24:54    3    there are other factors that might

10:24:56    4    also contribute to a decision that a

10:25:01    5    map maker makes as to which particular

10:25:01    6    counties or municipalities to split

10:25:07    7    and --- and how to split them.

10:25:08    8    Q.        And you're aware that the 2018

10:25:12    9    map had two municipal splits in

10:25:14   10    Allegheny County.

10:25:15   11              Correct?

10:25:16   12    A.        I --- I trust that that is ---

10:25:16   13    Q.        Sure.

10:25:16   14    A.        --- that is true.  I couldn't

10:25:16   15    identify them off the top of my head

10:25:23   16    for you.

10:25:23   17    Q.        And you have no reason to doubt

10:25:25   18    that the senate Democrat's map number

10:25:30   19    one also has two municipal splits in

10:25:32   20    Allegheny County?

10:25:33   21    A.        Again, a few days ago I

10:25:36   22    probably could have pointed them out

10:25:38   23    exactly to you, but at this moment I

10:25:41   24    --- I trust that your representation

10:25:42   25    is correct.
```

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10:25:44    1    Q.        So with respect to splitting
10:25:46    2    Pittsburgh, did you do any analysis
10:25:51    3    with respect to Pittsburgh in its
10:25:52    4    uniqueness related to communities of
10:25:56    5    interest?
10:26:03    6    A.        I'm, so I look at the split of
10:26:03    7    Pittsburgh in terms of the proportion
10:26:06    8    of the city that is allocated to each
10:26:08    9    of the districts.  I'm not entirely
10:26:11   10    certain what you mean beyond in terms
10:26:12   11    of other definitions of communities of
10:26:15   12    interest.
10:26:15   13    Q.        Well, are you aware that
10:26:16   14    Pittsburgh's really a --- it's really
10:26:21   15    a constellation of neighborhoods that
10:26:21   16    are separated by national --- natural
10:26:29   17    geographic borders such as rivers and
10:26:30   18    mountains.
10:26:30   19              Are you aware of that?
10:26:31   20    A.        I've --- I mean, I'm aware of
10:26:33   21    the geography of the city.
10:26:35   22    Q.        Pittsburgh has three rivers,
10:26:37   23    466 bridges and most bridges in the
10:26:45   24    entire world more than Venice?  Are
10:26:46   25    you aware of that?
```

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10:26:47    1    A.        I was not aware of the
10:26:48    2    particular number, but I am aware that
10:26:50    3    it has three rivers and that it has a
10:26:52    4    very unique geography in that way.
10:26:54    5    Q.        And we have unique
10:26:54    6    neighborhoods in Pittsburgh as well.
10:26:57    7    We have the east end, the north side
10:26:58    8    which formally was Allegheny City.  We
10:27:01    9    have the west end, we have the south
10:27:04   10    side, the South Side Slopes, we have
10:27:05   11    the Brookline, Beechview
10:27:07   12    neighborhoods.  And a lot of these
10:27:07   13    neighborhoods are split by natural
10:27:11   14    geography, and they all contain their
10:27:14   15    own unique individual cultures.  And
10:27:15   16    do you have any familiarity with that?
10:27:18   17    A.        Not to the degree that you are
10:27:19   18    describing, no.
10:27:20   19    Q.        And are you aware that, you
10:27:26   20    know, the neighborhoods in Pittsburgh
10:27:29   21    in the southern and western
10:27:30   22    communities are areas that are more
10:27:36   23    residential as opposed to the downtown
10:27:39   24    part of Pittsburgh, and you know, in
10:27:39   25    most cases they have closer ties to
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10:27:39    1    the suburban neighbors south of the
10:27:42    2    city.   Especially in the South Hills
10:27:43    3    area with the west end neighbors.   Do
10:27:46    4    you have any familiarity with that?
10:27:51    5    A.      So again, to the degree that
10:27:53    6    you are describing, no, I'm not that
10:27:53    7    familiar with the geography of
10:27:55    8    Pittsburgh.
10:27:56    9    Q.      Mount Washington, Allentown,
10:27:58    10   Overbrook, and Beechview, they share
10:27:58    11   the T with Dormont, Castle Shannon,
10:28:01    12   Mount Lebanon and Bethel Park.   And
10:28:06    13   the last four places I listed are not
10:28:09    14   within the City of Pittsburgh.   Again,
10:28:09    15   you're not familiar with that more
10:28:11    16   than what I'm just telling you now.
10:28:11    17        Right?
10:28:12    18   A.      That's correct.
10:28:13    19   Q.      And people actually when
10:28:14    20   they're in the South Hills, they
10:28:17    21   regularly mistake it --- mistakenly
10:28:21    22   refer to Banksville area as Green Tree
10:28:22    23   City.   So they're outside the city ---
10:28:22    24   sorry, they're in the city and they
10:28:27    25   don't even realize it sometimes.   They
```

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10:28:28    1   believe they're in Banksville ---
10:28:30    2   Banksville area or they believe
10:28:31    3   they're in Green Tree City at times.
10:28:33    4   And the Brownsville Road Business
10:28:35    5   District unites the South Slopes,
10:28:35    6   Arlington, Knoxville, and Carrick.  In
10:28:38    7   the city with boroughs of Mount
10:28:40    8   Oliver, Brentwood, Baldwin, and
10:28:42    9   Whitehall which are all not in the
10:28:44   10   city.  And in the spider like city
10:28:46   11   border on our western edge, it's hard
10:28:47   12   to know when you're in Pittsburgh or
10:28:49   13   when you're in Crafton, Carnegie,
10:28:49   14   Ingram or McKees Rocks.  But no
10:28:52   15   familiarity with that other than what
10:28:54   16   I'm telling you now.
10:28:54   17           Right?
10:28:55   18   A.      No, I'm --- I'm not that
10:28:56   19   familiar with it.
10:28:59   20   Q.      And in Pittsburgh, it's a big
10:29:01   21   deal for someone to move from one
10:29:04   22   neighborhood across the river to
10:29:04   23   another neighborhood.  But you have no
10:29:07   24   familiarity with that, do you?
10:29:08   25   A.      I mean, I'm sure that --- that
```

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10:29:10    1    is the case as it would be in the city
10:29:12    2    that I live in if one were move to the
10:29:18    3    other side the City.  The other side
10:29:20    4    of the city might look very different.
10:29:20    5    Q.    And you're aware that right
10:29:22    6    now, Allegheny County currently has
10:29:24    7    --- well, let me strike that.
10:29:28    8          All that information was
10:29:29    9    available to you in --- in the Lamb
10:29:33   10    report that was submitted with our
10:29:36   11    brief.  You didn't review that before
10:29:42   12    you gave your answers in your
10:29:42   13    testimony today.
10:29:43   14          Is that correct?
10:29:44   15    A.    I --- I mean, as --- as we are
10:29:45   16    all aware, we had about 24 hours.  And
10:29:48   17    so I ---.
10:29:49   18    Q.    And I have about one minute, so
10:29:51   19    I'm going to cut you off.
10:29:52   20    A.    Okay.
10:29:53   21    Q.    You're also aware that right
10:29:54   22    now in Allegheny County, Allegheny
10:29:59   23    County has two Democratic
10:30:05   24    representatives in Congress?  You're
10:30:05   25    aware of that.
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10:30:05    1           Correct?  Congressman Conor
10:30:06    2    Lamb and Congressman Mike Doyle
10:30:08    3    represent Allegheny County in
10:30:11    4    Congress?
10:30:11    5    A.      That's correct.
10:30:12    6    Q.      Okay.
10:30:12    7           And also, you're probably not
10:30:14    8    aware of the voting patterns within
10:30:16    9    the City, but we just had a mayoral
10:30:16   10    election in which a Democratic
10:30:16   11    candidate, Ed Gainey, was successful
10:30:25   12    when he ran against Republican
10:30:26   13    candidate Tony Marino?  Did you do any
10:30:28   14    analysis of that whatsoever when
10:30:30   15    trying to determine communities of
10:30:35   16    interest for the City of Pittsburgh?
10:30:38   17    A.      I did not consider mayoral
10:30:41   18    elections in my analysis.
10:30:41   19    Q.      And more specifically, the
10:30:43   20    voting pattern.  You can actually see
10:30:45   21    that there is geographic neighborhoods
10:30:45   22    track the voting pattern in that
10:30:49   23    election with respect to the
10:30:50   24    Republican candidate and Democratic
10:30:53   25    candidate that goes beyond just
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10:30:57    1    registration.  And that's nothing you

10:30:58    2    consider in making your opinions, is

10:31:00    3    it?

10:31:00    4    A.       I certainly look at the

10:31:02    5    partisan distribution of voters in

10:31:02    6    Pittsburgh and the broader Allegheny

10:31:05    7    County area.  I did not specifically

10:31:07    8    look at partisan voting behavior in

10:31:15    9    the mayoral race in Pittsburgh.

10:31:20   10                 ATTORNEY ATTISANO:

10:31:20   11                 Okay, thank you.  I have

10:31:20   12    no further questions, Judge.  Thank

10:31:22   13    you.

10:31:22   14                 JUDGE MCCULLOUGH:

10:31:22   15                 All right.  Thank you,

10:31:23   16    Counsel.  All right, Redirect.

10:31:30   17                 ATTORNEY MORGAN:

10:31:30   18                 Yes, Your Honor.  But

10:31:31   19    first Your Honor, let me start by ---

10:31:31   20    by thanking Your Honor and the Court

10:31:32   21    Staff for staying very, very late this

10:31:35   22    evening and being patient.  Much

10:31:35   23    appreciated.

10:31:35   24                     ---

10:31:35   25           REDIRECT EXAMINATION
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                                    - - -

10:31:43   1
10:31:43   2   BY ATTORNEY MORGAN:
10:31:43   3   Q.   Doctor Barber, you received
10:31:43   4   some questionings about the decisions
10:31:44   5   made in your simulations, and one of
10:31:44   6   them was it did not look at the
10:31:50   7   splitting of wards.
10:31:52   8   Do you recall that?
10:31:52   9   A.   Yes.
10:31:52   10   Q.   In fact, the only municipality
10:31:52   11   that can be split in your simulations
10:31:56   12   is Philadelphia.
10:31:56   13   Correct?
10:31:56   14   A.   This's correct.
10:31:57   15   Q.   And so, is that the only place
10:31:58   16   where wards can be split?
10:32:01   17   A.   Yes.
10:32:01   18   Q.   Now you also, if you recall,
10:32:03   19   received a lot of questioning about
10:32:04   20   your use of a .5 percent population
10:32:13   21   deviation in your simulation. Do you
10:32:14   22   recall that?
10:32:14   23   A.   Yes.
10:32:14   24   Q.   Okay.
10:32:14   25   Is --- is that a common

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10:32:16    1    methodology used in this area?
10:32:17    2    A.      It's extremely common.  Most of
10:32:20    3    the algorithms that are used in these
10:32:20    4    redistricting cases allow for some
10:32:26    5    amount of population deviation because
10:32:26    6    the computer is just not capable of
10:32:28    7    --- of doing --- doing these
10:32:29    8    simulations otherwise.  It's
10:32:31    9    noteworthy that I only allow a half of
10:32:34   10    a percent of deviation.  There are
10:32:36   11    other simulations that have been used
10:32:39   12    in cases --- in --- in the League of
10:32:41   13    Women Voters cases that allowed for
10:32:42   14    larger deviations in terms of
10:32:43   15    population.
10:32:43   16    Q.      Well actually, and let's look
10:32:44   17    at that, Doctor Barber.  Can you
10:32:46   18    please refer to page 13 of your
10:32:48   19    report, specifically footnote 13?
10:32:53   20    A.      Yes.
10:32:53   21    Q.      And --- and what do you
10:32:54   22    indicate in footnote 13?
10:32:57   23    A.      So I make reference to exactly
10:32:58   24    this.  That other expert reports that
10:33:02   25    use similar simulation algorithms
```

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10:33:05    1    allow for a population deviation of
10:33:08    2    two percent, some of them use a one
10:33:12    3    percent population deviation, others I
10:33:15    4    think the footnote continues to the
10:33:17    5    next page, allow for a one half of one
10:33:21    6    percent deviation.
10:33:22    7    Q.       Now including Doctor Pegman's
10:33:25    8    analysis that was relied upon by the
10:33:27    9    Court in the LWV case.
10:33:31   10            Correct?
10:33:31   11    A.       That's correct.  He in fact
10:33:33   12    uses the largest deviation of two
10:33:36   13    percent.
10:33:36   14    Q.       And did any of the experts who
10:33:36   15    have submitted reports in this case,
10:33:39   16    including the rebuttal reports, raise
10:33:41   17    this criticism in any of their
10:33:43   18    reports?
10:33:43   19    A.       No.
10:33:43   20    Q.       And in your opinion, will the
10:33:45   21    process of equalizing the population
10:33:45   22    in any of these maps, will that have a
10:33:53   23    meaningful impact on the outcomes of
10:33:54   24    the simulations?
10:33:55   25    A.       No.  So this is one of the
```

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`10:33:56` 1   reasons why we don't typically fret

`10:34:03` 2   about this issue is that one, these

`10:34:03` 3   plans are never intended to be

`10:34:03` 4   proposals for what should or should

`10:34:05` 5   not be enacted. Two, suppose someone

`10:34:06` 6   unwisely did --- you would obviously

`10:34:08` 7   need to adjust the population, but

`10:34:12` 8   moving three --- 3,800 people is not

`10:34:15` 9   going to have a sizeable or, you know,

`10:34:17` 10   even measurable impact in a District

`10:34:20` 11   that contains more than 750,000

`10:34:22` 12   people.

`10:34:23` 13   Q.   And have other experts in this

`10:34:25` 14   field recognized the same thing?

`10:34:26` 15   A.   Yes.

`10:34:26` 16   Q.   Does Doctor Duchin report

`10:34:29` 17   anywhere in her report what the

`10:34:31` 18   population deviation is in her

`10:34:34` 19   ensemble of 100,000 maps?

`10:34:35` 20   A.   No.

`10:34:35` 21   Q.   Now you were also asked about

`10:34:37` 22   your failure to test your algorithm

`10:34:41` 23   using the 2011 plan.

`10:34:42` 24   Do you recall that?

`10:34:43` 25   A.   Yes.

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10:34:43   1    Q.      Does Doctor Duchin report doing
10:34:46   2    that for her 100,000 ensemble maps
10:34:49   3    anywhere in her report?
10:34:50   4    A.      No.
10:34:51   5    Q.      Let's talk quickly and briefly
10:34:51   6    about the index of elections that you
10:35:01   7    used.  Again, just for reminder, you
10:35:01   8    used an index of all statewide
10:35:03   9    elections from 2012 to 2020.
10:35:06   10           Is that right?
10:35:06   11   A.      Yes.
10:35:06   12   Q.      And is it --- is it again a
10:35:08   13   common methodology in this area to use
10:35:11   14   an index of elections like that?
10:35:13   15   A.      Yes, it's incredibly common for
10:35:15   16   the reasons that I described earlier
10:35:18   17   which is these races are not
10:35:21   18   Congressional races.  And so, if we're
10:35:21   19   trying to use these races as a proxy,
10:35:21   20   we don't want the idiosyncrasies of
10:35:21   21   auditor races or attorney general
10:35:29   22   races or U.S. Senate races to have
10:35:30   23   much of an impact.  And the average of
10:35:31   24   these races washes out that particular
10:35:34   25   impact.
```

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10:35:34    1    Q.        And did any of the experts
10:35:38    2    whose opinions the Court relied upon
10:35:40    3    in the League of Women Voters case use
10:35:44    4    an index of elections similar to what
10:35:44    5    you're using?
10:35:45    6    A.        Yes, it's extremely common.
10:35:51    7    Q.        Doctor Barber, you received a
10:35:52    8    lot of questions about the algorithm
10:35:55    9    that you're using.  Was the SMC
10:35:55   10    algorithm that you used, was it
10:36:02   11    empirically validated?
10:36:02   12    A.        Yes.
10:36:03   13    Q.        And what does that mean?
10:36:04   14    A.        So what it means is that the
10:36:06   15    researchers used a small set, a small
10:36:08   16    geographic unit in which we actually
10:36:10   17    know the discreet number of possible
10:36:15   18    maps that could be drawn.  So in
10:36:18   19    Pennsylvania, it's trillions.  We
10:36:19   20    could never know all of the maps, but
10:36:21   21    what we can do is we can validate this
10:36:24   22    by using a small subset of a --- of an
10:36:26   23    area.  And so, we take a small
10:36:26   24    geographic unit and say we know all of
10:36:34   25    the possible maps that could be drawn.
```

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10:36:34    1    Let's run the algorithm, take a sample
10:36:38    2    of those, and then compare the sample
10:36:41    3    to that population.  That allows us to
10:36:41    4    validate if the model is in fact doing
10:36:44    5    what the math says it should be doing
10:36:48    6    which is drawing a representative
10:36:48    7    sample.
10:36:49    8    Q.      And --- and I believe you
10:36:49    9    testified earlier that the Khalif Ali
10:36:49   10    was one of the developers of this
10:36:49   11    algorithm?
10:36:53   12    A.      Yes.
10:36:53   13    Q.      And is he a professor of
10:36:59   14    Harvard?
10:36:59   15    A.      He is, yes.
10:36:59   16    Q.      And has he also served as an
10:36:59   17    expert in redistricting cases and
10:36:59   18    related work?
10:37:00   19    A.      Yes.  He's used this exact
10:37:01   20    algorithm in testifying in the
10:37:03   21    legislative Reapportionment Commission
10:37:09   22    here in Pennsylvania as well as in
10:37:09   23    Ohio.
10:37:10   24    Q.      And to your knowledge, Doctor
10:37:12   25    Barber, was Doctor Ali's algorithm and
```

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10:37:14   1    testimony accepted as reliable and ---
10:37:17   2    reliable and relied upon by the Ohio
10:37:19   3    Supreme Court?
10:37:19   4    A.       Yes.
10:37:32   5    Q.       You also received a lot of
10:37:33   6    questions about the reasons that you
10:37:35   7    utilized certain percentages for race
10:37:37   8    in your secondary simulation that you
10:37:39   9    conducted, but --- but sort of relying
10:37:42   10   back, why is it that you even did this
10:37:45   11   secondary simulation in the first
10:37:47   12   instance?
10:37:48   13   A.       So the second set of
10:37:50   14   simulations, what I call the race
10:37:53   15   conscious simulations, are really
10:37:53   16   simply there to act as a validation or
10:37:55   17   a check or a robustness check to make
10:38:00   18   sure that it's not the case that
10:38:02   19   explicit considerations of race would
10:38:05   20   have a big impact in what these
10:38:09   21   simulations look like.  So you can
10:38:11   22   imagine that you could run a set of
10:38:14   23   simulations that don't consider race,
10:38:16   24   and then you get a bunch of experts up
10:38:20   25   here that say well, if you have
```

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10:38:24   1    considered race, everything would be
10:38:24   2    different.  The --- the purpose of
10:38:24   3    that second set of simulations is to
10:38:25   4    rebut that criticism or preemptively
10:38:34   5    say well no, that's not the case.
10:38:34   6    Let's --- let's make sure that that
10:38:35   7    isn't what's going on.
10:38:35   8    Q.      And I think if I recall
10:38:35   9    correctly that one of the questions
10:38:36   10   you were asked about how many of the
10:38:37   11   simulations create, you know, a
10:38:39   12   majority black District and another
10:38:42   13   majority/minority District, similar to
10:38:43   14   what some of the plans proposed to the
10:38:46   15   Court have.
10:38:47   16           Do you recall that?
10:38:48   17   A.      Yes, that's correct.
10:38:48   18   Q.      And did you actually look at
10:38:50   19   that issue?
10:38:51   20   A.      I did, yes.  So in one of my
10:38:53   21   figures, I report only the
10:38:54   22   simulations, the race blind
10:38:59   23   simulations that incidentally also
10:39:01   24   create a majority/minority District
10:39:03   25   and a majority opportunity district.
```

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10:39:07   1   Q.        Can you turn to page 37 and
10:39:09   2   look at Figure 8 of your report,
10:39:12   3   please?
10:39:12   4   A.        Yes.
10:39:12   5   Q.        And is this the analysis you're
10:39:14   6   referring to?
10:39:15   7   A.        Yes.  So the middle panel of
10:39:18   8   this figure shows the results of that
10:39:23   9   --- of that analysis.  I --- I refer
10:39:24  10   to it as the race filtered analysis.
10:39:26  11   Q.        And is 1,852 maps different
10:39:31  12   maps, is that a significant enough
10:39:34  13   sample to be able to draw conclusions
10:39:35  14   from?
10:39:36  15   A.        It is, yes.  And it's more than
10:39:38  16   some people use in their entire
10:39:41  17   ensemble.
10:39:44  18   Q.        So are there other experts that
10:39:44  19   use a similar number or lower number
10:39:44  20   of total maps to --- to be a
10:39:44  21   representative sample?
10:39:45  22   A.        Yes.
10:39:45  23   Q.        And those expert's opinions
10:39:47  24   have been relied upon by courts?
10:39:49  25   A.        Yes.
```

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10:39:50    1    Q.         And so, looking at the middle

10:39:52    2    graph of Figure 8, how does this

10:39:56    3    demonstrate the, sort of the partisan

10:39:58    4    effect of, you know, looking at only

10:40:00    5    those maps that include one majority

10:40:07    6    minority District and one majority

10:40:08    7    black District?

10:40:10    8    A.         So it really indicates that

10:40:10    9    there's minimal impact.  So when you

10:40:12   10    look at the districts that only

10:40:17   11    contain these, or meet these --- the

10:40:17   12    simulations that meet these criteria,

10:40:19   13    if you compare the left panel to the

10:40:21   14    middle panel, you can see that there's

10:40:25   15    really minimal change.  There's not

10:40:27   16    much of an impact on the partisan

10:40:29   17    breakdown of the simulations when you

10:40:31   18    restrict your consideration to

10:40:33   19    simulations that include these

10:40:35   20    districts that meet particular racial

10:40:39   21    thresholds.

10:40:39   22    Q.         Doctor Barber, is there one

10:40:47   23    particular way to measure fairness of

10:40:48   24    a Congressional map?

10:40:49   25    A.         No.
```

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`10:40:49` 1   Q.   In fact, there are lots of

`10:40:50` 2   ways, aren't there?

`10:40:52` 3   A.   There are as many ways as there

`10:40:54` 4   are people who study this.

`10:40:55` 5   Q.   And a lot of the fairness of a

`10:40:57` 6   map is based upon what the particular

`10:40:59` 7   goals of that party is.

`10:41:01` 8   Correct?

`10:41:02` 9   A.   That's, party meaning the

`10:41:04` 10   person, not political party?

`10:41:06` 11   Q.   Correct, like the person

`10:41:08` 12   analyzing the fairness of the map?

`10:41:10` 13   A.   Yes.

`10:41:11` 14   ATTORNEY MORGAN:

`10:41:11` 15   Thank you, Your Honor.

`10:41:13` 16   No further questions.

`10:41:14` 17   JUDGE MCCULLOUGH:

`10:41:14` 18   All right, thank you.

`10:41:15` 19   You may step down, and Doctor, thank

`10:41:18` 20   you. That concludes for this evening.

`10:41:24` 21   I thank you all for your cooperation.

`10:41:26` 22   We will convene again tomorrow at 9:30

`10:41:28` 23   a.m., and we will begin with the

`10:41:30` 24   expert for Congressional Intervenors.

`10:41:37` 25   After we finish those experts, we will

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10:41:40    1    have closing arguments and hopefully
10:41:43    2    we'll be done.  Thank you.
10:41:43    3              Counsel, do you have a
10:41:44    4    question?
10:41:44    5              ATTORNEY WIYGUL:
10:41:44    6              Yeah, I'm sorry, Your
10:41:44    7    Honor.  I just wanted to return for
10:41:44    8    --- for purposes of knowing what the
10:41:46    9    lay of the land will be tomorrow to
10:41:46   10    the question about a Department of
10:41:48   11    State witness.  I know Your Honor
10:41:50   12    suggested earlier, if I understood
10:41:54   13    correctly, that perhaps that witness
10:41:58   14    wouldn't be necessary in this case.
10:42:00   15              I will say my --- my
10:42:00   16    concern in part is to make the record
10:42:02   17    on issues of what would be
10:42:04   18    administratively feasible with respect
10:42:06   19    to changes to the calendar.  In part,
10:42:08   20    because I think only because of the
10:42:10   21    number of parties, the chances that
10:42:12   22    there will be an appeal from this
10:42:14   23    Court's decision are fairly good and
10:42:17   24    that the supreme --- I would like the
10:42:20   25    Supreme Court to be able to have a
```

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10:42:22    1    record on administrative feasibility

10:42:24    2    of various potential changes to the

10:42:26    3    calendar.

10:42:27    4                    My suggestion would be,

10:42:27    5    we might be able to do that in the

10:42:30    6    form of an affidavit to save time if

10:42:32    7    the parties would agree.  And I would

10:42:33    8    be happy to work with my clients to

10:42:35    9    see if we can put that together and

10:42:36   10    circulate it in the morning.

10:42:37   11                    JUDGE MCCULLOUGH:

10:42:38   12                    And actually, you were

10:42:39   13    not at the meeting this morning.  I

10:42:40   14    know you were stuck in traffic, but

10:42:42   15    that is generally the consensus of

10:42:48   16    counsel is we could do that by way of

10:42:49   17    an affidavit.  Could I have a show of

10:42:51   18    nods of heads?  Yes, okay?  So, yes,

10:42:52   19    great suggestion and that's what we

10:42:53   20    agreed on in your absence.

10:42:54   21                    ATTORNEY WIYGUL:

10:42:54   22                    I'm glad I came to the

10:42:56   23    right conclusion late.

10:42:57   24                    JUDGE MCCULLOUGH:

           25                    So I think an affidavit
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	1
	2
	3
10:42:57	5
10:42:59	6
10:43:01	7
10:43:02	8
10:43:02	9
10:43:03	10
10:43:03	11
10:43:03	12
10:43:04	13
10:43:08	14
10:43:14	15
10:43:15	16
10:43:16	17

1   would be --- would be perfectly fine.

2   ATTORNEY WIYGUL:

3   Thank you, Your Honor.

4   JUDGE MCCULLOUGH:

5   And you can offer it

6   tomorrow if you have it ready

7   tomorrow.

8   ATTORNEY WIYGUL:

9   Very good, thank you.

10   JUDGE MCCULLOUGH:

11   Okay.

12   Any other counsel need

13   to raise an issue? No? All right,

14   thank you.

15   COURT CRIER HOLLAND:

16   Commonwealth Court is

17   now adjourned.

18   * * * * * * * *

19   HEARING CONCLUDED

20   * * * * * * * *

21

22

23

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CERTIFICATE

I hereby certify that the foregoing

proceedings, hearing held before

Judge, was reported by me on 1/27/2022

and that I, Nicole Montagano, read

this transcript, and that I attest

that this transcript is a true and

accurate record of the proceeding.

Dated the 28 day of January, 2022

Nicole S. Montagano,

Court Reporter

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1   IN THE COMMONWEALTH COURT OF

2   PENNSYLVANIA

3   * * * * * * * *

4   Carol Ann Carter;   *
     Monica Parrilla;   * CASES
5   Rebecca Poyourow;   * CONSOLIDATED
     William Tung;   *
6   Roseanne Milazzo;   * No.
     Burt Siegel;   * 464 MD 2021
7   Susan Cassanelli;   *
     Lee Cassanelli;   *
8   Lynn Wachman;   *
     Michael Guttman;   *
9   Maya Fonkeu;   *
     Brady Hill;   *
10   Mary Ellen Balchunis;   *
     Tom DeWall;   *
11   Stephanie McNulty;   *
     And Janet Temin,   *
12   Petitioners   *
        V.   *
13   Vernica Degraffenreid,   *
     in her official   *
14   capacity as the Acting   *
     Secretary of the   *
15   Commonwealth of   *
     Pennsylvania; and   *
16   Jessica Mathis, in her   *
     Official capacity as   *
17   Director for the   *
     Pennsylvania Bureau of   *
18   Election Services and   *
     Notaries,   *
19   Respondents   *
     *

20

     BEFORE: PATRICIA A. MCCULLOUGH, JUDGE
21

     CONTINUED HEARING: Friday, January 28,
22

                    2022
23

                    9:30 a.m.
24

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 1      Philip T. Gressman;        *
        Ron Y. Donagi;             *
 2      Kristopher R. Tapp;        *
        Pamela Gorkin;             *
 3      David P. Marsh;            *
        James L. Rosenberger;      *
 4      Amy Meyers;                *
        Eugene Boman;              *
 5      Gary Gordojn;              *
        Liz McMahon;               *  No.
 6      Timothy G.Freman;          *  465 M.D. 2021
        And Garth Isakk,           *
 7           Petitioners           *
           V.                      *
 8      Vernica Degraffenreid,     *
        in her official            *
 9      capacity as the Acting     *
        Secretary of the           *
10      Commonwealth of            *
        Pennsylvania; and          *
11      Jessica Mathis, in her     *
        Official capacity as       *
12      Director for the           *
        Pennsylvania Bureau of     *
13      Election Services and      *
        Notaries,                  *
14           Respondents           *

15                 *   *   *   *   *   *   *   *

16

17

18      LOCATION: Pennsylvania Judicial Center

19                601 Commonwealth Avenue

20                Suite 1500

21                Harrisburg, PA  17120

22      WITNESSES: Keith Naughton, Devin

23      Caughey

24

25           Reporter: Nicole Montagano
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675

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                                                      679
1           A P P E A R A N C E S  (con't)

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13   The Pennsylvania House of

14   Representatives

15

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1   E X H I B I T S

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3   P a g e

4   N u m b e r   D e s c r i p t i o n   O f f e r e d

5

6   N O N E   M A R K E D

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1   I N D E X

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3   OPENING REMARKS

4   BY JUDGE MCCULLOUGH   685 - 686

5   WITNESS: DR. NAUGHTON

6   DIRECT EXAMINATION

7   By Attorney Haverstick   687 - 767

8   CROSS EXAMINATION

9   By Attorney Gordon   767 - 790

10   CROSS EXAMINATION

11   By Attorney Johnson   791 - 809

12   CROSS EXAMINATION

13   By Attorney Wiygul   810 - 833

14   CROSS EXAMINATION

15   By Attorney Lewis   833 - 842

16   CROSS EXAMINATION

17   By Attorney Senoff   842 - 860

18   CROSS EXAMINATION

19   By Attorney Attisano   860 - 886

20   DISCUSSION AMONG PARTIES   886 - 892

21   WITNESS: DEVIN CAUGHEY

22   DIRECT EXAMINATION

23   By Attorney Attisano   892 - 953

24   CROSS EXAMINATION

25   By Attorney Posimato   954 - 962

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                                                 684
 1                     I N D E X

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 3    CROSS EXAMINATION

 4        By Attorney Harrison      962 - 971

 5    CROSS EXAMINATION

 6        By Attorney Wiygul       971 - 982

 7    CROSS EXAMINATION

 8        By Attorney Tucker       983 - 1001

 9    CROSS EXAMINATION

10        By Attorney Vance       1002 - 1012

11    REDIRECT EXAMINATION

12        By Attorney Attisano    1013 - 1016

13    DISCUSSION AMONG PARTIES    1016 - 1025

14    CLOSING ARGUMENTS

15        By Attorney Attisano    1025 - 1032

16        By Attorney Senoff      1032 - 1042

17        By Attorney Haverstick  1043 - 1056

18        By Attorney Lewis       1057 - 1069

19        By Attorney Holtzman    1069 - 1078

20        By Attorney Wiygul      1079 - 1096

21        By Attorney Amunson     1096 - 1106

22        By Attorney Gordon      1107 - 1118

23    CLOSING REMARKS

24        By Judge McCullough     1118 - 1121

25    CERTIFICATE                        1122
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1   P R O C E E D I N G S

2   -

3   COURT CRIER TURNER:

4   All rise. Commonwealth

5   Court is now in session. The

6   Honorable Judge McCullough presiding.

7   Please be seated.

8   JUDGE McCULLOUGH:

9   Good morning.

10   I hope you all got some

11   rest and food and heat. Thank you.

12   We're ready to move this morning.

13   I just want to tell

14   Counsel that after we finish with the

15   first expert witness, I will have a

16   status conference with lead Counsel

17   again in the same room where we met

18   yesterday morning. And that also

19   gives our IT some additional time that

20   they will need to set the remote for

21   this expert witness for the last, I

22   think, yes.

23   Okay.

24   So we can tie up any

25   loose ends at our status conference if

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00:17:17    1    there's anything else, Counsel, that
00:17:18    2    we need to bring up in the Court
00:17:20    3    afterwards.  But for now we will
00:17:22    4    proceed to hear testimony, from, I
00:17:22    5    believe, Congressional Intervenors.
00:17:30    6                    Mr. Haverstick?
00:17:45    7                    ATTORNEY HAVERSTICK:
00:17:45    8                    Good morning, Your
            9    Honor.
           10                    JUDGE MCCULLOUGH:
           11                    Good morning.
           12                    ATTORNEY HAVERSTICK:
           13                    Your Honor, I call
00:18:10   14    Doctor Keith Naughton.
00:18:10   15                    COURT CRIER TURNER:
00:18:11   16                    Would you please raise
           17    your right hand?
           18                         - - - -
           19                    DR. NAUGHTON,
           20    CALLED AS A WITNESS IN THE FOLLOWING
           21    PROCEEDINGS, HAVING FIRST BEEN DULY
           22    SWORN, TESTIFIED AND SAID AS FOLLOWS:
00:18:23   23                         - - -
00:18:23   24                    COURT CRIER TURNER:
00:18:23   25                    Thank you.
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00:18:23   1   BY ATTORNEY HAVERSTICK:

00:18:25   2   Q.   Good morning, Dr. Naughton.

00:18:27   3   A.   Good morning.

00:18:27   4   Q.   Doctor, spell your last name

00:18:28   5   for the court reporter, please.

00:18:28   6   A.   N-A-U-G-H-T-O-N. I spent my

00:18:39   7   whole life spelling it for everybody.

00:18:39   8   Q.   You're a doctor?

00:18:40   9   A.   Correct.

00:18:40   10   Q.   What's your doctorate?

00:18:42   11   A.   Public Policy.

00:18:43   12   Q.   That's, I think, different from

00:18:46   13   most of the other folks who testified

00:18:47   14   yesterday.

00:18:48   15   A.   Well, my dissertation is in

00:18:52   16   part grounded in political science.

00:18:55   17   Q.   What background do you have

00:19:03   18   that's relevant for the Courts when we

00:19:03   19   consider what maps are the right ones

00:19:09   20   for Pennsylvania?

00:19:10   21   A.   Well, I spent 15 years working

00:19:12   22   in Pennsylvania campaign politics at

00:19:20   23   all levels, doing all types of jobs,

00:19:20   24   all types of responsibilities,

00:19:21   25   statewide races, local races, federal

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00:19:22    1    races and so forth.
00:19:22    2    Q.      And I'm going to ask you
00:19:24    3    another question about that in a
00:19:27    4    minute.  In terms of your academic
00:19:29    5    background, what are some of the
00:19:30    6    disciplines that one studies when you
00:19:32    7    get a Ph.D. in Public Policy?
00:19:35    8    A.      Well, a dissertation is a very
00:19:38    9    challenging thing.  I mean, it can
00:19:42   10    take six years to accomplish.  It's
00:19:44   11    very involved.  You have to become an
00:19:47   12    expert in the field in which you're
00:19:47   13    studying.
00:19:47   14         So for me, I spent two years
00:19:48   15    reading about congressional politics,
00:19:54   16    about how constituents interact with
00:19:57   17    their members, all the theoretical
00:20:00   18    bases of representation, also some
00:20:02   19    economics, because I developed sort of
00:20:04   20    an economic model when it comes to
00:20:10   21    political interaction.
00:20:11   22    Q.      And you're not a computer
00:20:12   23    scientist or mathematician, but did
00:20:12   24    you have to get conversant in
00:20:15   25    mathematics and statistics?
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`00:20:17` 1   A.   Yes.   There's an enormous

`00:20:19` 2   quantitative component in the social

`00:20:20` 3   sciences for all Ph.D's.   In my own

`00:20:24` 4   doctorate I used Heckman's selection

`00:20:27` 5   in a zero inflated negative binomial.

`00:20:34` 6   Those two were reliant on the

`00:20:36` 7   dependent variable.   That's why I had

`00:20:36` 8   to do different models.   And I haven't

`00:20:38` 9   done it in a while, so, you know, you

`00:20:39` 10 kind of use it or lose it.   So I don't

`00:20:42` 11 think I could lecture anyone on the

`00:20:42` 12 Heckman selection, not that anyone

`00:20:45` 13 wants to hear it.

`00:20:45` 14 Q.   I think none of us wants to

`00:20:48` 15 hear it, but maybe not.   Let's go back

`00:20:51` 16 to your campaign consultant

`00:20:53` 17 experience.

`00:20:59` 18 A.   Sure.

`00:20:59` 19 Q.   Tell the Court why that

`00:21:00` 20 background is useful in what we're

`00:21:02` 21 doing today and yesterday and what the

`00:21:04` 22 Judge will be doing in the next couple

`00:21:06` 23 of days.

`00:21:06` 24 A.   Running campaigns and getting

`00:21:10` 25 elected is not something you read

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00:21:12   1    about in a book or can learn in a
00:21:13   2    classroom.  I mean, if you've never
00:21:16   3    been a candidate or if you've never
00:21:18   4    run a campaign, you just --- you don't
00:21:19   5    know what it's like until you've done
00:21:21   6    it.  And to win races in Pennsylvania
00:21:28   7    or any other state, particularly a
00:21:29   8    state like Pennsylvania, which is
00:21:30   9    incredibly diverse, you have to know
00:21:32  10    the ins and outs of the whole state.
00:21:35  11             I mean --- and I could sort of
00:21:36  12    regurgitate my resume and say I've
00:21:42  13    been in all 67 counties, which I have,
00:21:42  14    and experience in all 67 counties,
00:21:44  15    which I have.  But I think the key
00:21:46  16    thing is I used to tell people if you
00:21:50  17    want --- if you're in politics, if
00:21:57  18    you're running campaigns, you know,
00:21:58  19    you have to win to eat.  So you've got
00:22:00  20    to win races.  So I did that for 15
00:22:05  21    years, and I think that demonstrates
00:22:06  22    my record.
00:22:07  23    Q.      Any particular vignettes you
00:22:09  24    want to share with all of us in the
00:22:11  25    room about your experience as usual?
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00:22:12   1    A.        Well, there is a particular set

00:22:13   2    of races.   I've done a lot of judicial

00:22:16   3    races in the state, and I've won ---

00:22:22   4    I've won a vast majority of them.   And

00:22:25   5    these are tough races.   And, you know,

00:22:26   6    the thing about being elected Judge in

00:22:34   7    Pennsylvania is being a Judge is the

00:22:35   8    pinnacle of the profession.   And I've

00:22:37   9    been around a lot of lawyers and every

00:22:39   10   lawyer I know has always thought, you

00:22:41   11   know, I'd like to be a Judge some day.

00:22:44   12   But being a Judge has nothing to do

00:22:49   13   with how --- with getting votes.

00:22:49   14            And I always tell a candidate,

00:22:49   15   I said, look, you let me fly the

00:22:56   16   plane, you help me, and we'll get you

00:22:59   17   to where you want to go.   So one

00:23:01   18   particular race I worked on was for

00:23:04   19   Judge Gantman.   And she won by 13

00:23:08   20   votes.   And that was the closest race

00:23:11   21   in the history of Pennsylvania, going

00:23:11   22   back to when Ben Franklin was flying

00:23:14   23   kites.   And the thing about --- you

00:23:16   24   know, I've been asked, you know, what

00:23:17   25   makes the difference.   Well, it's 13
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00:23:19   1    votes.  Everything makes a difference.
00:23:21   2    Q.       In your opinion, can a
00:23:24   3    candidate win --- can you win a close
00:23:29   4    race like that in Pennsylvania without
00:23:33   5    knowing the Commonwealth at a regional
00:23:36   6    and maybe at a local level?
00:23:36   7    A.       No.  And, you know, like in
00:23:37   8    that particular race, you know, it's
00:23:40   9    the radio spots and where you put
00:23:41  10    them, and it's the mail and where you
00:23:43  11    send it, and it's where do you send
00:23:45  12    your candidate where they're best able
00:23:46  13    to collect votes, what interviews do
00:23:50  14    you do, what endorsements are you able
00:23:52  15    to go to.  And when it's 13 votes, if
00:23:54  16    you make one wrong move, you're going
00:23:56  17    to lose.  So we had to do everything
00:23:59  18    right.
00:24:03  19    Q.       I imagine part of doing
00:24:05  20    everything right is really connecting
00:24:07  21    with people at a local level.
00:24:08  22             Is that fair?
00:24:09  23    A.       Yes.
00:24:09  24    Q.       Does that give you insight that
00:24:11  25    you can share with the Court about
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00:24:13   1    what, in your opinion, congressional
00:24:14   2    or constituents, people, want from
00:24:22   3    their congressmen or women?
00:24:23   4    A.      Well, I think it's a mistake to
00:24:25   5    believe that people are --- most
00:24:26   6    people are sort of hyper-partisan.
00:24:28   7    That is not my experience at all.  And
00:24:30   8    I think it's backed up by the polling
00:24:33   9    research.
00:24:35   10          Most people, they kind of group
00:24:36   11   their elected officials together, and
00:24:37   12   they just want things to go well.
00:24:38   13   They want the government to run right.
00:24:40   14   They want the streets fixed, the
00:24:42   15   streets plowed.  They want the schools
00:24:46   16   to run well.  It's sort of very all
00:24:46   17   instrumental thinking.
00:24:52   18          And they also want to feel that
00:24:54   19   they're represented and they want to
00:24:55   20   feel that they're heard.  And they
00:24:59   21   want to know that if they have an
00:25:00   22   issue they can go to their member of
00:25:01   23   Congress or State Representative and
00:25:03   24   ask for help and that they're going to
00:25:04   25   get some help.  It's a very personal
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00:25:06    1    relationship.
00:25:06    2    Q.        Based on your knowledge of the
00:25:09    3    state, how many people actually vote
00:25:11    4    typically?
00:25:11    5    A.        Well, it depends on, you know,
00:25:13    6    the year.  On odd numbered or local
00:25:20    7    elections, it can be as low as
00:25:20    8    25 percent and on Presidential
00:25:23    9    Elections it can be over 70 percent.
00:25:25    10   Wide variance.
00:25:25    11   Q.        Do you think that to understand
00:25:27    12   Pennsylvania politics and Pennsylvania
00:25:30    13   political geography you have to
00:25:32    14   understand about nonvoters, too?
00:25:34    15   A.        Well, yes, because you want to
00:25:38    16   get the people who don't habitually
00:25:42    17   vote to come out for your candidate.
00:25:42    18   You've got to figure out who is and
00:25:44    19   isn't voting.  You know, you've got to
00:25:47    20   target the best --- your best
00:25:48    21   opportunities.  And, you know, I would
00:25:50    22   add one thing is, you know, if you're
00:25:52    23   a Republican in Pennsylvania, you have
00:25:54    24   got to find a way to convince
00:25:55    25   Democrats to vote for you.
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00:25:57    1    Q.        You know, I'm going to ask you
00:25:58    2    a question about that in one second.
00:26:01    3    A.        Sure.
00:26:01    4    Q.        One more follow-up.  Are there,
00:26:01    5    in your view, regional or maybe even
00:26:06    6    hyper-local issues that transcend
00:26:09    7    party politics?
00:26:11    8    A.        Absolutely, absolutely.
00:26:12    9    Q.        Can you tell the Court some?
00:26:14   10    A.        Every part of the state is
00:26:16   11    different and every part has its
00:26:21   12    needs.  I don't know if this is
00:26:21   13    getting at your question, but, you
00:26:26   14    know, some parts of the state are
00:26:26   15    particularly focused on voting for
00:26:28   16    their own people, like sort of home
00:26:31   17    places.  Like Johnstown is --- you
00:26:31   18    know, if you're from Johnstown and
00:26:31   19    you're running across the state,
00:26:37   20    everybody's voting for you.  Scranton
00:26:38   21    is a very big, like, hometown kind of
00:26:40   22    focused electorate.  You know,
00:26:42   23    Wilkes-Barre is as well.  And the
00:26:45   24    Pittsburgh region is.  You know, we
00:26:49   25    see this manifested actually in our
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00:26:51    1    Court races.
00:26:54    2              You know, for decades the
00:26:55    3    Supreme Court has been dominated by
00:26:57    4    Judges from Pittsburgh.  This goes
00:27:00    5    back to, you know, the 50s because
00:27:01    6    people in that region, they vote for
00:27:03    7    folks from that area.  And they kind
00:27:05    8    of --- that happens in Johnstown and
00:27:07    9    it happens in the northeast, but it's
00:27:09   10    just there's so many votes in
00:27:09   11    Pittsburgh, it kind of crowds people
00:27:11   12    out.
00:27:11   13    Q.      Are there nonpolitical issues
00:27:13   14    that cause people, voters and
00:27:15   15    nonvoters, to coalesce in certain
00:27:17   16    parts of the state?
00:27:18   17    A.      All the time.  All the time.
00:27:19   18    And people will coalesce around
00:27:19   19    philosophical things like pro-life or
00:27:19   20    pro-choice.  But, you know, if you're
00:27:19   21    not serving the people in your
00:27:19   22    district, sort of not, as they say,
00:27:30   23    delivering the bacon for everybody,
00:27:33   24    you know, forget it.  You can't ---
00:27:33   25    you cannot just go on auto pilot and
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697

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00:27:36    1    get the right American Conservative
00:27:39    2    Union or ADA score and cruise to
00:27:43    3    election.  It doesn't work that way.
00:27:44    4    You got to connect with the people.
00:27:44    5    Q.      So if you were going to design,
00:27:45    6    for instance, a district in a region
00:27:47    7    that had a significant elderly
00:27:49    8    population, you would want to know
00:27:50    9    that.
00:27:50   10          Right?
00:27:51   11    A.      Yes.
00:27:51   12    Q.      Why?
00:27:52   13    A.      Well, because they have common
00:27:54   14    interests.  And, you know, grouping
00:27:58   15    with people with common interests is
00:28:00   16    very important because besides this R
00:28:04   17    versus D issue, they have specific
00:28:08   18    needs.  They need Social Security
00:28:10   19    protected.  They need money for
00:28:13   20    Access, you know, for public transit.
00:28:16   21    They --- you know, they need just a
00:28:16   22    whole a variety of issues.  You know,
00:28:24   23    people who are aged require healthcare
00:28:24   24    and so forth.
00:28:24   25          Well, if you have them sort of
```

698

`00:28:28` 1 split up chock-a-block in different

`00:28:29` 2 districts, what kind of representation

`00:28:30` 3 are they going to get?

`00:28:31` 4 Q.   I gather there are all kinds of

`00:28:33` 5 issues, again, nonparty politics

`00:28:36` 6 issues, that could cause people to

`00:28:38` 7 want to coalesce all over the state?

`00:28:41` 8 A.   The vast majority of people are

`00:28:42` 9 not thinking about far right, far left

`00:28:46` 10 on a daily basis. And, again, I think

`00:28:48` 11 that's shown by the poll.

`00:28:50` 12 Q.   Now, before I ask you to

`00:28:54` 13 comment on yesterday's testimony,

`00:28:55` 14 which I'm about to do, let's --- let

`00:29:01` 15 me ask you a question. In fairness,

`00:29:03` 16 some of my colleagues all around us

`00:29:05` 17 may want to ask you a little bit

`00:29:07` 18 later. Your campaign history has been

`00:29:12` 19 one advocating for Republicans?

`00:29:15` 20 A.   Yes.

`00:29:15` 21 Q.   Would it be a fair criticism of

`00:29:17` 22 your testimony today to impugn it

`00:29:21` 23 because you only represented

`00:29:22` 24 Republicans when you were doing that

`00:29:23` 25 kind of work?

699

```
00:29:24   1    A.      No.
00:29:25   2    Q.      Why not?
00:29:26   3    A.      Everything I said today about
00:29:28   4    how campaigns work I believe a
00:29:29   5    Democratic consultant would say
00:29:33   6    because the campaigns are the same.
00:29:34   7    And the matter is you're either
00:29:35   8    working for Republican campaigns or
00:29:41   9    Democratic campaigns.  So, you know,
00:29:42   10   that is it.
00:29:43   11   Q.      You get to learn the state as a
00:29:45   12   campaign consultant regardless of what
00:29:46   13   party?
00:29:46   14   A.      You have to.
00:29:47   15   Q.      All right.
00:29:48   16           I promised you we'd talk about
00:29:50   17   yesterday's testimony and now we will.
00:29:53   18   You did observe it, whether it was on
00:29:55   19   the television ---
00:29:56   20   A.      Yes.
00:29:56   21   Q.      --- or screens or live?
00:30:01   22   A.      Yes.
00:30:01   23   Q.      Explain to the Court what, in
00:30:03   24   your opinion, were some of the
00:30:05   25   weaknesses you heard in yesterday's
```

700

```
00:30:08    1    expert testimony, I mean, to the
00:30:09    2    extent you think there were
00:30:09    3    weaknesses.
00:30:14    4    A.        Well, I think the first thing I
00:30:15    5    want to emphasize is I think all the
00:30:18    6    experts are brilliant individuals.
00:30:21    7    And these mathematical models are ---
00:30:25    8    have some extraordinary features.
00:30:35    9    They're very sophisticated and very
00:30:36   10    impressive.  And they are --- you
00:30:37   11    know, these are brilliant individuals,
00:30:39   12    so I'm not impugning their
00:30:40   13    intellectualism in any way, shape or
00:30:44   14    form.
00:30:44   15            But the problem with what they
00:30:47   16    testified about is what's the power of
00:30:51   17    their models?  Because we're running
00:30:55   18    --- we're running an election and
00:30:56   19    there's a lot of things that have to
00:30:59   20    --- that go into winning an election.
00:31:02   21    And that these models, as very
00:31:07   22    sophisticated as they are and as much
00:31:09   23    effort as they've put into them,
00:31:11   24    that's only part of things.
00:31:13   25    Q.        Well, let's zero in on this a
```

701

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00:31:14    1    little bit because it's, I think,
00:31:16    2    vital to what we're talking about
00:31:18    3    today.  Can you put some meat on the
00:31:21    4    bones?  Can you give us a couple of
00:31:22    5    examples of what you're talking about?
00:31:26    6    A.      Yes.  Let me back up for just a
00:31:28    7    second.  So we've got a two-party
00:31:33    8    system.  That's --- other countries,
00:31:33    9    many other countries, have a
00:31:37   10    parliamentary system.  So you got a
00:31:37   11    bunch of parties and then they run an
00:31:39   12    election and then they negotiate to
00:31:41   13    form a government, to put it very
00:31:44   14    simplistically.
00:31:45   15            In the United States, all of
00:31:46   16    our squabbling, arguing folks are
00:31:54   17    under one or the other umbrella.  So
00:31:56   18    when the President wins, he's on top
00:32:00   19    of this rickety coalition.  And you
00:32:03   20    know, he just --- he can't satisfy all
00:32:04   21    their demands.  So President Biden has
00:32:10   22    been elected.  He's trying to satisfy
00:32:11   23    all these demands.  It's really
00:32:11   24    challenging.
00:32:12   25            And you go through about two
```

702

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00:32:14    1   years and you get to that first
00:32:14    2   midterm election.  And so you've got a
00:32:17    3   whole bunch of people and they're
00:32:18    4   thinking, okay, we elected this guy.
00:32:20    5   He didn't give us what he wanted, and
00:32:22    6   so they're not too happy.  You know,
00:32:24    7   they stay at home for that election.
00:32:27    8           Now, the other side is mad.
00:32:28    9   They lost and they don't like anything
00:32:30   10   that's going on.  So their turn-up
00:32:32   11   goes up.  The President's party's
00:32:36   12   turn-out goes down, and you have a
00:32:37   13   wipeout for the President on election
00:32:43   14   day.
00:32:43   15           Over the --- in three --- let's
00:32:45   16   see.  Between 2018, 2008, 1994, all
00:32:49   17   first midterms, the President's party
00:32:54   18   has lost an average of 53 seats.  Now,
00:32:59   19   the only time that this very powerful
00:33:03   20   dynamic doesn't work is when there's
00:33:03   21   like a national security crisis like
00:33:08   22   9/11, when George W. Bush's rating is
00:33:08   23   70 percent, Cuban missile crisis, '62,
00:33:10   24   although the Democrats still lost
00:33:12   25   seats.
```

703

`00:33:12` 1   So outside of this sort of

`00:33:14` 2   unpredictable, exogenous event, the

`00:33:18` 3   first midterm for a President is a

`00:33:21` 4   disaster for his party on

`00:33:25` 5   congressional elections. And this has

`00:33:27` 6   been going on for decades. This is

`00:33:29` 7   not unusual. The same dynamic is in

`00:33:34` 8   effect.

`00:33:34` 9   Q.   Did you see the models

`00:33:34` 10 yesterday account for factors like

`00:33:39` 11 that?

`00:33:39` 12 A.   I didn't see it. And I will

`00:33:40` 13 tell you this flat out, this November

`00:33:40` 14 the Democrats are going to lose,

`00:33:43` 15 barring this unpredictable event.

`00:33:44` 16 They are going to lose 30, 40 seats,

`00:33:50` 17 maybe more. And a year from now,

`00:33:52` 18 Democrats are going to be lucky to

`00:33:55` 19 have six seats. I don't care what the

`00:33:56` 20 model is. They're going to grind

`00:33:59` 21 these predictions right into the dust.

`00:33:59` 22 Q.   What other factors, other than

`00:34:01` 23 a midterm that we're talking about,

`00:34:03` 24 would impact the models that we heard

`00:34:05` 25 yesterday that you don't think were

704

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00:34:07    1    there, if there are any?
00:34:07    2    A.        Well, this is a huge factor,
00:34:07    3    you know, as President, because then,
00:34:09    4    if I could say, when the President
00:34:12    5    runs, that party, the winning
00:34:15    6    President, tends to do better, so
00:34:17    7    they'll pick up seats.  It's not as
00:34:20    8    powerful, but that tends to happen.
00:34:22    9    So there's that larger thing.
00:34:23   10            Look, it's fundraising.  It's
00:34:25   11    the state of the economy.  The state
00:34:28   12    of economy is a huge thing.  If we're
00:34:28   13    in a recession, people are not happy
00:34:31   14    with what's going on.  The incumbents
00:34:34   15    lose and they tend to blame the
00:34:35   16    President.  That hurts the President.
00:34:39   17            So you got economy, you've got
00:34:39   18    fundraising, you got candidate
00:34:40   19    quality, a little bit harder to
00:34:42   20    quantify.  Maybe who is the Governor
00:34:44   21    of the state might have some effect.
00:34:46   22    I'm kind of dubious about that.
00:34:50   23    Q.        So am I right when you were
00:34:51   24    listing these factors, because I think
00:34:54   25    you answered my question, these aren't
```

705

```
00:34:56    1   factors that you heard discussed
00:34:57    2   yesterday in anyone's expert report?
00:34:59    3   A.       No.
00:34:59    4   Q.       Do they need to be there?
00:35:01    5   A.       Of course.
00:35:01    6   Q.       What's the relevant importance
00:35:03    7   to the factors that you did hear about
00:35:04    8   yesterday?
00:35:05    9   A.       I can't say that unless you run
00:35:09   10   the model.  But we've seen this
00:35:11   11   historically.  We saw this in 2006.  I
00:35:13   12   think that --- I think in the
00:35:14   13   redistricting in 2006, it was said
00:35:18   14   something like there were going ---
00:35:19   15   there were going to be 13 permanent
00:35:22   16   Republican seats, something like that.
00:35:24   17           But the second midterm, which
00:35:26   18   is also bad for the incumbent
00:35:28   19   President's party, in 2006, the
00:35:32   20   Republicans didn't get 13 seats, they
00:35:34   21   got 8.  And the Democrats more than
00:35:38   22   doubled and they added seats the next
00:35:40   23   election.  And that's --- that just
00:35:42   24   illustrates the power of the
00:35:45   25   Presidency and the power of these
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706

`00:35:48` 1   national trends and this national

`00:35:50` 2   mood, and they overwhelm these

`00:35:52` 3   partisan turnout models.

`00:35:55` 4   And you can test this. We have

`00:35:58` 5   the data. You can test the power of

`00:36:00` 6   it. And that was really the enormous

`00:36:00` 7   weakness yesterday. And it has to be

`00:36:09` 8   included. You have to got to --- you

`00:36:09` 9   can talk about these turnout models

`00:36:12` 10 and the various theories, but you've

`00:36:14` 11 got to come before this Court and say,

`00:36:16` 12 okay, and we've tested it with all

`00:36:18` 13 these other important factors, and you

`00:36:20` 14 know what, it's ten percent of the

`00:36:21` 15 power.

`00:36:22` 16   If we don't know the power of

`00:36:23` 17 these models, why are we spending all

`00:36:26` 18 day talking about them?

`00:36:27` 19 Q.   Let's talk, for the Court's

`00:36:30` 20 benefit and mine, about the actual

`00:36:33` 21 technical aspect of drawing a map and

`00:36:36` 22 what happens when a computer does it

`00:36:39` 23 as opposed to a live body. Can you

`00:36:39` 24 think of any problems you heard

`00:36:46` 25 yesterday in the testimony about

707

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00:36:47    1    computer failures?
00:36:47    2    A.        Well, I think the challenge ---
00:36:51    3    let me just say globally --- maybe I'm
00:36:51    4    not exactly answering the question, is
00:36:54    5    you know, I think these computers sort
00:36:57    6    of look at the state as 13 million red
00:36:59    7    and blue widgets and we're just going
00:37:02    8    to try to sort of mix them and put
00:37:03    9    them in the right place.  And that's
00:37:05   10    not really what we're talking about.
00:37:06   11            We're talking about
00:37:07   12    individuals.  But --- that the
00:37:08   13    computers can't really capture.  And
00:37:11   14    they can't really capture sort of
00:37:12   15    context and anomaly.
00:37:14   16            And I want to mention something
00:37:14   17    sort of geographically, I think.  So
00:37:14   18    when you look at Pittsburgh, and this
00:37:14   19    was mentioned in some of the briefs,
00:37:25   20    it's this very oddly-shaped city.  And
00:37:27   21    that's an artifact of how it grew over
00:37:28   22    time.  And Allegheny County itself,
00:37:30   23    Western Pennsylvania, all these ridges
00:37:32   24    and hills and water courses, and it
00:37:34   25    all developed in this kind of
```

708

00:37:35   1   chocka-a-block fashion.

00:37:38   2   Now, unfortunately, when people

00:37:40   3   formed their boroughs and cities and

00:37:42   4   townships in the 19th century, they

00:37:46   5   didn't realize that these shapes would

00:37:48   6   so upset Dr. Popper and his desire for

00:37:52   7   compactness.

00:37:52   8   So you have this unusually safe

00:37:54   9   city. And then there's a particular

00:37:58   10   suburb called Baldwin Borough, and

00:38:01   11   it's in the South Hills and it loops

00:38:03   12   from near the southern border of

00:38:06   13   Allegheny County and it sort of

00:38:09   14   expands up, and then it --- then it

00:38:10   15   narrows on this Becks Run, very

00:38:10   16   narrowly, this ravine, and it goes to

00:38:10   17   the Monongahela River. And then

00:38:10   18   there's a slice of the community that

00:38:10   19   goes along the river.

00:38:19   20   So it's this very unusually

00:38:21   21   shaped community, but it works for

00:38:22   22   that community because that's just how

00:38:22   23   --- that's just the topography that

00:38:22   24   developed it.

00:38:28   25   But it creates a problem for

709

```
00:38:29    1    the model, because the model wants to
00:38:32    2    fit it in with the city.  It doesn't
00:38:34    3    matter that this long strip along the
00:38:38    4    river is just a row of railroad tracks
00:38:42    5    and a scrap yard.  It doesn't matter
00:38:44    6    that this Beck's Run Valley is this
00:38:50    7    ravine, not a lot of people live
00:38:51    8    there, it's not really connected to
00:38:51    9    the city.  To Arlington Heights on the
00:38:51   10    one side --- it's not really --- it's
00:38:58   11    just woods on the other side.
00:38:58   12            So I believe that this
00:39:00   13    Polsby-Popper and the Schwartzberg
00:39:03   14    models that try to have this
00:39:07   15    compactness, they want to put Baldwin
00:39:07   16    with the city first.  They said you
00:39:09   17    know something, we got to take care of
00:39:10   18    this anomalous city.  And that
00:39:12   19    naturally pushes the model to put
00:39:15   20    Whitehall and Brentwood in together.
00:39:17   21            So I think that's the model
00:39:19   22    wants to do first.  So we got to do
00:39:21   23    this because we got to get this shape.
00:39:23   24            But that's a problem, because
00:39:25   25    even though those communities you can
```

710

`00:39:27`   1   make legitimate arguments to include

`00:39:29`   2   them, they're not the three

`00:39:30`   3   communities that, in my view, and I

`00:39:32`   4   think in most people in Allegheny

`00:39:35`   5   County would agree, that are best

`00:39:37`   6   connected or best attached to the City

`00:39:39`   7   of Pittsburgh.

             8   So if you look at the east

             9   border of Pittsburgh, it's this nice

            10   straight line. And you have this

            11   bulge in Homewood, Brushton. That's

            12   great for the model. They love that.

            13   Q.   Would you like me to put it on

            14   the screen?

            15   A.   Sure. Sure. Go ahead. Let me

            16   keep talking.

            17   Q.   Okay.

`00:39:57`   18   I'm thinking this is a little

`00:39:58`   19   more abstract.

`00:40:00`   20   A.   So the best city to attach to

`00:40:02`   21   the City of Pittsburgh is Wilkinsburg

`00:40:05`   22   because their high school students go

`00:40:07`   23   to Westinghouse High School. In the

`00:40:08`   24   city, they share a fire department,

`00:40:10`   25   they share some other services.

711

`00:40:12` 1   They're negotiating or discussing a

`00:40:14` 2   merger.

`00:40:15` 3   I mean, Wilkinsburg and

`00:40:22` 4   Pittsburgh are the number one --- you

`00:40:23` 5   know across the whole state, they're

`00:40:23` 6   most likely to merge as a municipality

`00:40:24` 7   in the future.

`00:40:24` 8   So if you're going to draw a

`00:40:26` 9   map, step one is you put those two

`00:40:28` 10 communities together. But see, the

`00:40:30` 11 computer model doesn't like that,

`00:40:33` 12 because it actually makes the line

`00:40:35` 13 longer. You know, it doesn't matter

`00:40:37` 14 that in this straight line, that

`00:40:39` 15 straight line that goes through

`00:40:40` 16 Wilkinsburg and Swissvale and

`00:40:42` 17 Edgewood, that slices through

`00:40:45` 18 neighborhoods. That slices through

`00:40:48` 19 back yards. Those are neighborhoods

`00:40:50` 20 that are very much connected and make

`00:40:53` 21 a lot of sense.

`00:40:53` 22   So, you know, if I'm drawing a

`00:40:54` 23 map and I want to do something that's

`00:40:56` 24 right for Allegheny County and do

`00:40:59` 25 something right for Pittsburgh, like

712

`00:41:00` 1   Pittsburgh plus Mount Oliver, I'm

`00:41:00` 2   going to put in Wilkinsburg, Edgewood,

`00:41:04` 3   Swissvale and Penn Hills because

`00:41:08` 4   they're very connected to the city.

`00:41:09` 5   They make a lot of sense, lots of

`00:41:11` 6   common interests.

`00:41:12` 7   Now, you know, the

`00:41:14` 8   Polsby-Popper score, I don't like

`00:41:16` 9   that, because it adds all these lines,

`00:41:17` 10 but it makes sense for these folks.

`00:41:19` 11   I mean, so if I'm doing

`00:41:20` 12 Allegheny County, it's Pittsburgh,

`00:41:23` 13 eastern suburbs, Mon Valley, and then

`00:41:26` 14 I kind of --- then I kind of figure

`00:41:28` 15 out where I'm going to rope things in

`00:41:30` 16 from there.

`00:41:31` 17 Q.   Now, that's a nice transition

`00:41:33` 18 to the next area I want to discuss.

`00:41:35` 19 And I think we're --- for now we can

`00:41:36` 20 take that down.

`00:41:37` 21   I'd like to ask you in a big

`00:41:40` 22 picture sense about a couple of splits

`00:41:45` 23 in Pennsylvania.

`00:41:45` 24 A.   Sure.

`00:41:46` 25 Q.   Let's start, since you were

713

`00:41:51`   1   just talking about it with your

`00:41:53`   2   opinion on splitting Pittsburgh?

`00:41:54`   3   A.   I think it's a terrible idea.

`00:41:56`   4   Q.   Tell us why.

`00:41:57`   5   A.   I absolutely disagree with it.

`00:41:58`   6   Because the city is it's own political

`00:42:05`   7   unit, and the city is a diverse city.

`00:42:08`   8   There's a lot of different interests.

`00:42:10`   9   But the fact that it's together unites

`00:42:16`   10   people's interests for resources.

`00:42:17`   11   They vote, you know, for the

`00:42:19`   12   same elected officials. I mean, just

`00:42:21`   13   the fact that they are within this

`00:42:23`   14   municipal unit gives them a series of

`00:42:26`   15   common interests. And I think

`00:42:29`   16   splitting them up, I think, that's a

`00:42:31`   17   mistake. I think it dilutes the vote

            18   for the city. I think it dilutes

            19   their advocacy.

            20   You know, the thing about

            21   running congressional races,

            22   Pennsylvania is like very

`00:42:43`   23   geographical. Like, as I said before,

`00:42:44`   24   like, people in their neighborhood

`00:42:47`   25   like to vote for their own folks.

714

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00:42:49    1              So if you take the city and if
00:42:50    2       you were to slice it in half and, say,
00:42:51    3       put the southern section, the South
00:42:54    4       Hills, South Side in one and you put
00:42:56    5       sort of East and North Side in the
00:42:57    6       other, you know, what's that, 120,000
00:43:00    7       or something along those lines in that
00:43:05    8       south end.  If you put it in with
00:43:08    9       Beaver County and the outside suburbs,
00:43:14   10       I can very easily see a scenario ---
00:43:14   11       and this isn't a map that's reflected
00:43:14   12       of, by the way.  I can very easily see
00:43:14   13       a scenario where someone's running for
00:43:14   14       Congress, and I think, you know
00:43:19   15       something, I'm not getting any votes
00:43:20   16       in the city, so I'm not going to deal
00:43:22   17       with the city at all.  I'm going to go
00:43:24   18       into the suburbs.  I can get votes in
00:43:27   19       Robinson Township.  I can get votes in
00:43:31   20       Greentree.  I cannot get votes in Bel
00:43:36   21       Seward, you know, I'm not going there.
00:43:37   22       And then those folks are going to lose
00:43:39   23       representation.
00:43:39   24              And the alternate --- the
00:43:42   25       alternate is a Democratic candidate
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A1012

715

`00:43:46` 1   who thinks, you know, I've got these

`00:43:48` 2   Democratic votes, I feel I can take

`00:43:51` 3   them for granted. So I've got to go

`00:43:56` 4   get these swing voters in the suburbs

`00:43:59` 5   to, you know, to prop me up, to give

`00:44:00` 6   me that advantage.

`00:44:01` 7   So if you split the City of

`00:44:03` 8   Pittsburgh in two, I think it's most

`00:44:05` 9   likely that they're going to lose

`00:44:07` 10   representation. They're going to

`00:44:09` 11   looks advocacy. And it's not going to

`00:44:11` 12   matter whether it's a Republican or

`00:44:13` 13   Democrat.

`00:44:14` 14   Q.   Next split, Philadelphia and

`00:44:16` 15   Bucks County. Talk to us about what

`00:44:18` 16   you think should be done in

`00:44:19` 17   Philadelphia and Bucks County.

`00:44:20` 18   A.   Bucks County should absolutely

`00:44:21` 19   not be combined with the city. The

`00:44:25` 20   right Bucks County district would have

`00:44:27` 21   Bucks in its entirety and then move

`00:44:31` 22   into Montgomery County, as they've

`00:44:36` 23   done for decades as they're used to,

`00:44:37` 24   as they have common interests. I

`00:44:38` 25   mean, that border between Bensalem and

716

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00:44:39    1    Philadelphia, you know, you don't know
00:44:44    2    if you haven't been there.
00:44:45    3            If you --- you know, if you
00:44:45    4    walk across that line, you know you're
00:44:47    5    in Bucks County.  You know it.  It is
00:44:49    6    --- those are two different places.
00:44:51    7    And Bucks, even though it is a diverse
00:44:53    8    place and there's diversity between
00:44:57    9    lower Bucks and upper Bucks, it's used
00:44:59   10    to being together.  They work
00:45:01   11    together.  They like being a unit.
00:45:04   12    They don't want to be part of the
00:45:06   13    city.  I guarantee you that.
00:45:07   14    Q.      Well, it's funny you mention
00:45:09   15    they like being together.  Are you
00:45:11   16    aware of the resolution passed by ---
00:45:13   17    unanimously by Bucks County Council on
00:45:17   18    whether it wants to be in a district
00:45:21   19    by itself?
00:45:22   20    A.      Okay.
00:45:22   21            Heard about it, didn't read it.
00:45:24   22    And you just informed me it was
00:45:27   23    unanimous, which is surprising.  The
00:45:31   24    Commissioners voted unanimously?
00:45:32   25    Q.      Wait.  Now, listen.  Let's not
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717

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00:45:34    1    take my word for it.  I'll show it to
00:45:36    2    you.
00:45:36    3    A.       Sorry.
00:45:44    4                    ATTORNEY HAVERSTICK:
00:45:45    5                    Could we put this up on
00:45:46    6    the screen?  And I'd would like to
00:45:48    7    mark this as Reschenthaler 1.  I
00:45:48    8    apologize.  I'd like to mark this as
00:46:06    9    Reschenthaler 1.  We only have about
00:46:07   10    four copies.  I'd like to show it to
00:46:09   11    him.
00:46:09   12                    JUDGE McCULLOUGH:
00:46:10   13                    Yes, you can show it to
00:46:11   14    him.
00:46:12   15                    ATTORNEY HAVERSTICK:
00:46:13   16                    I know it's on the big
00:46:14   17    screen, but I'll give it to you to
00:46:15   18    keep.
00:46:16   19                    ATTORNEY WIYGUL:
00:46:17   20                    Your Honor, if I may?
00:46:17   21                    JUDGE MCCULLOUGH:
00:46:17   22                    Yes.
00:46:17   23                    ATTORNEY WIYGUL:
00:46:17   24                    I have an objection,
00:46:17   25    Your Honor.  I guess I'll file this
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00:46:20    1    under goose and gander.  This is not
00:46:21    2    an exhibit that was disclosed to us
00:46:24    3    previously, unless I'm mistaken.
00:46:26    4    We're seeing this for the first time,
00:46:27    5    and so I think the same objection that
00:46:29    6    was lodged against the exhibits that I
00:46:31    7    was going to offer, even though they
00:46:33    8    derived directly from the data of the
00:46:35    9    report, ought to apply here as well.
00:46:38   10                    ATTORNEY HAVERSTICK:
00:46:39   11                    Your Honor, may I
00:46:39   12    respond?
00:46:40   13                    JUDGE McCULLOUGH:
00:46:40   14                    Yes.
00:46:40   15                    ATTORNEY HAVERSTICK:
00:46:41   16                    Could he wait maybe
00:46:42   17    until I ask to move it into evidence?
00:46:44   18                    JUDGE McCULLOUGH:
00:46:44   19                    You're not asking to
00:46:50   20    move ---?
00:46:50   21                    ATTORNEY HAVERSTICK:
00:46:51   22                    Well, I haven't done it
00:46:51   23    yet.
00:46:51   24                    JUDGE McCULLOUGH:
00:46:51   25                    Well, yesterday he
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00:46:52    1    wanted to use an exhibit for

00:46:53    2    demonstrative purposes, maybe moving

00:46:57    3    it or not into evidence, and Counsel

00:46:58    4    were objecting that they had not been

00:47:00    5    given a copy of it before.

00:47:01    6                   ATTORNEY HAVERSTICK:

00:47:02    7                   And I understand that.

00:47:03    8    I think there's --- I mean, I can

00:47:03    9    argue, I suppose, that there's a

00:47:05   10    significant difference between a

00:47:07   11    complicated computer animation that

00:47:08   12    they had, and I'm sure had done for a

00:47:10   13    long time, and a resolution that, I

00:47:12   14    think, only came out yesterday.  And

00:47:13   15    anyway, it's something that the Court

00:47:15   16    can take judicial notice of.

00:47:17   17                   I don't have to put it

00:47:18   18    into evidence.  I just wanted him to

00:47:22   19    tell us if he was aware of it, and if

00:47:24   20    it reflects his, you know, his

00:47:25   21    testimony about what people in Bucks

00:47:32   22    wanted.

00:47:32   23                   ATTORNEY SENOFF:

00:47:33   24                   Your Honor, David Senoff

00:47:33   25    for the Democratic Caucus.  We would
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00:47:33 1 just lodge a separate objection which

00:47:33 2 is not really an objection, but we

00:47:36 3 would ask for an offer of proof with

00:47:37 4 regard to the relevance of this

00:47:39 5 particular resolution given that we

00:47:43 6 know as a matter of law that a

00:47:47 7 resolution at a local level is not

00:47:49 8 binding on the State General Assembly.

00:47:52 9   So I don't --- and I'm

00:47:54 10 talking about redistricting. I

00:47:56 11 understand this talks about

00:47:57 12 redistricting. The idea that the

00:47:57 13 Commissioners voted to do something or

00:48:04 14 other is kind of irrelevant because

00:48:06 15 the state law would preempt this in

00:48:08 16 any event, and so would the United

00:48:13 17 States Constitution.

00:48:13 18   ATTORNEY HAVERSTICK:

00:48:13 19   Your Honor, that's a

00:48:14 20 weight question. His testimony was

00:48:16 21 folks in Bucks wanted to keep Bucks in

00:48:19 22 a district by itself, and I think this

00:48:20 23 references it. He also testified that

00:48:21 24 he knew about it. But I'm not

00:48:24 25 hellbent and don't need to put it into

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00:48:26    1    evidence.
00:48:26    2                        I wanted to ask him if
00:48:28    3    this is what he was talking about when
00:48:30    4    he testified about it.
00:48:31    5                        ATTORNEY SENOFF:
00:48:31    6                        I'm going to object.  I
00:48:33    7    think he said he didn't know about it
00:48:34    8    and that he would be willing to take
00:48:38    9    Counsel's word for it.
00:48:39   10                        ATTORNEY HAVERSTICK:
00:48:40   11                        No.  He said he hadn't
00:48:41   12    read it.  He said he knew about it.
00:48:43   13                        JUDGE McCULLOUGH:
00:48:43   14                        We can go back to the
00:48:44   15    record if you want.
00:48:45   16                        ATTORNEY SENOFF:
00:48:45   17                        No, no.  I agree with
00:48:46   18    Counsel's representation that he said
00:48:47   19    he hadn't read it, but that he knew
00:48:49   20    about it.
00:48:50   21                        So in light of that if
00:48:51   22    he wants to question him about it, you
00:48:53   23    know, I think an offer of proof with
00:48:56   24    regard to where we're going with this,
00:48:57   25    recognizing that the vote of the
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`00:49:00`   1   county council is not the vote of the

`00:49:02`   2   population of a county, it's a vote of

`00:49:05`   3   representatives of the county, on one

`00:49:07`   4   hand.

`00:49:08`   5   And on the other hand,

`00:49:09`   6   I'm still not sure what the relevance

`00:49:14`   7   of this is to the constitutionality of

`00:49:16`   8   any particular matter.

`00:49:17`   9   JUDGE McCULLOUGH:

`00:49:17`   10   Okay.

`00:49:19`   11   Do you want to make an

`00:49:19`   12   offer of proof?

`00:49:20`   13   ATTORNEY HAVERSTICK:

`00:49:20`   14   Your Honor, I think the

`00:49:21`   15   witness testified that he was aware

`00:49:22`   16   --- first, the witness testified that

`00:49:24`   17   people in Bucks like to have Bucks in

`00:49:26`   18   a district by itself and not be

`00:49:28`   19   combined with Philadelphia. Then when

`00:49:30`   20   I asked him, he said he was aware of a

`00:49:33`   21   resolution to that effect, and it is,

`00:49:36`   22   in fact, unanimous. I made that

`00:49:39`   23   representation. But, you know, as the

`00:49:40`   24   Court can see and take note of, it is

`00:49:42`   25   signed by a 2-1 --- or I'm sorry, a

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`00:49:47` 1   3-0 unanimous board member group.

`00:49:51` 2   Look, I don't mean to

`00:49:53` 3   belabor this. I think I made my

`00:49:55` 4   point. My point is he's right.

`00:49:57` 5   People in Bucks County, through their

`00:49:59` 6   elected representatives, want Bucks

`00:50:04` 7   County to be in a district by itself.

`00:50:05` 8   And that's his testimony and ---.

`00:50:08` 9   ATTORNEY SENOFF:

`00:50:08` 10   Your Honor, I'd object

`00:50:09` 11   to that statement and move that

`00:50:11` 12   Counsel's statement about what the

`00:50:12` 13   witness' testimony is and whether it's

`00:50:13` 14   right or wrong be stricken from the

`00:50:16` 15   record.

`00:50:16` 16   JUDGE McCULLOUGH:

`00:50:17` 17   Well, I'll let you

`00:50:18` 18   reserve to make that statement in your

`00:50:19` 19   closing argument.

`00:50:20` 20   ATTORNEY HAVERSTICK:

`00:50:21` 21   Fair enough.

`00:50:22` 22   JUDGE McCULLOUGH:

`00:50:22` 23   The Court will not put

`00:50:23` 24   weight in that particular statement at

`00:50:25` 25   this juncture.

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`00:50:26` 1   ATTORNEY HAVERSTICK:

`00:50:26` 2   Fair enough.

`00:50:27` 3   JUDGE McCULLOUGH:

`00:50:27` 4   Okay.

`00:50:27` 5   So as to the resolution,

`00:50:29` 6   are you asking the Court to take

`00:50:31` 7   judicial notice? Do you need to ask

`00:50:33` 8   your witness additional questions

`00:50:35` 9   about this or ---?

`00:50:38` 10   ATTORNEY HAVERSTICK:

`00:50:38` 11   I don't think that I do,

`00:50:40` 12 Your Honor. I will --- we have

`00:50:42` 13 another issue the Court knows about,

`00:50:44` 14 an evidentiary issue that I think

`00:50:48` 15 either we're going to deal with in

`00:50:49` 16 chambers. I did intend to move into

`00:50:52` 17 evidence that other expert report at

`00:50:53` 18 the end of this today.

`00:50:54` 19   I'll probably try to

`00:50:55` 20 move this in and we can talk about it

`00:50:58` 21 then or maybe I'll just withdraw my

`00:51:01` 22 effort to put in what I marked as

`00:51:02` 23 Reschenthaler 1 into evidence.

`00:51:03` 24   As I said, I think the

`00:51:04` 25 testimony now speaks for itself.

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00:51:06    1                   JUDGE McCULLOUGH:
00:51:06    2                   Okay.
00:51:07    3                   And when I say not put
00:51:10    4       weight, I mean on your statement not
00:51:11    5       on your witness' statement ---
00:51:14    6                   ATTORNEY HAVERSTICK:
00:51:15    7                   Yes.
00:51:15    8                   JUDGE McCULLOUGH:
00:51:16    9                   --- which I did hear.
00:51:17   10                   ATTORNEY WIYGUL:
00:51:17   11                   Yeah.  Just, generally,
00:51:17   12       Your Honor, if I may make one last
00:51:20   13       point.  I understood the Court to be
00:51:22   14       enforcing a rule that witness
00:51:23   15       testimony had to be --- the
00:51:25   16       information they're testifying to had
00:51:27   17       to be set forth in the report.  And
00:51:29   18       that's the rule I understood the Court
00:51:30   19       to enforce with respect to Dr.
00:51:33   20       Duchin's testimony.
00:51:33   21                   And seeing that this was
00:51:34   22       not at all discussed in the report, I
00:51:36   23       don't think it's fair for the witness
00:51:39   24       to now opine on it for the first time
00:51:41   25       in the live testimony today.
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ATTORNEY HAVERSTICK:

00:51:43 1

00:51:43 2   I don't know that he's

00:51:43 3 opining on it, Your Honor. He

00:51:43 4 testified about it, and I asked him is

00:51:46 5 this what you're talking about, and he

00:51:46 6 said yes. That's not an opinion on

00:51:48 7 it. It's saying, yes, that's the

00:51:52 8 thing that I just said, yes, I was

00:51:53 9 aware.

00:51:53 10   ATTORNEY WIYGUL:

00:51:54 11   The Court's been

00:51:54 12 enforcing the same rules as ---.

00:51:54 13   JUDGE McCULLOUGH:

00:51:55 14   Are you talking about

00:51:55 15 the resolution, Mr. Wiygul?

00:51:59 16   ATTORNEY WIYGUL:

00:51:59 17   Yeah. I'm talking

00:51:59 18 generally. I understood the Court's

00:52:00 19 ruling yesterday to be that, you know,

00:52:00 20 if there are facts that were not

00:52:02 21 discussed that don't appear anywhere,

00:52:04 22 that weren't relied in the expert

00:52:10 23 report, that cannot be the basis of

00:52:11 24 testimony by the expert during this

00:52:13 25 hearing. And if I understood the

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00:52:15    1    Court's rule correctly, I think it can
00:52:17    2    apply equally in these circumstances.
00:52:19    3                    ATTORNEY HAVERSTICK:
00:52:19    4                    Look, Your Honor, ---.
00:52:19    5                    JUDGE MCCULLOUGH:
00:52:19    6                    Go ahead.
00:52:21    7                    ATTORNEY HAVERSTICK:
00:52:21    8                    I'm sorry.  I thought
00:52:23    9    you were saying something.  Look, I
00:52:25   10    didn't object when one of the folks
00:52:28   11    put in declarations or whatever they
00:52:30   12    did, because why am I bothering to
00:52:32   13    object to that.  It seems silly,
00:52:34   14    right.  I mean, this is a document
00:52:36   15    that's not hearsay, and you can take
00:52:39   16    judicial notice of it.
00:52:42   17                    If you don't want or if
00:52:43   18    it's easier, I won't move it into
00:52:45   19    evidence.  But I mean, good grief, he
00:52:47   20    testified that he knew about it and
00:52:49   21    I'm not allowed to even ask him is
00:52:51   22    this what you're talking about?
00:52:53   23    That's not what he said.
00:52:55   24                    JUDGE MCCULLOUGH:
00:52:55   25                    Okay.
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00:52:59    1                    Well, I think, Mr.
00:53:00    2    Wiygul, that Mr. Haverstick is not
00:53:07    3    going to pursue questioning on this
00:53:08    4    document.
00:53:08    5                    ATTORNEY HAVERSTICK:
00:53:08    6                    I'm done with it.
00:53:08    7                    JUDGE McCULLOUGH:
00:53:10    8                    So we're good to go.
00:53:10    9                    ATTORNEY WIYGUL:
00:53:10   10                    Okay.
00:53:10   11                    I would just ask, Your
00:53:10   12    Honor, that any testimony that the
00:53:12   13    witness gave with respect to the
00:53:13   14    resolution be stricken on the same
00:53:17   15    grounds that I laid out.
00:53:18   16                    ATTORNEY HAVERSTICK:
00:53:19   17                    Including the question
00:53:20   18    where I asked him if he knew about it
00:53:23   19    before he even saw it?
00:53:23   20                    ATTORNEY WIYGUL:
00:53:23   21                    Yes, Your Honor.
00:53:23   22                    JUDGE McCULLOUGH:
00:53:24   23                    I think you have a
00:53:26   24    different objection that's broader
00:53:27   25    than what you're trying to say right
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00:53:29    1   now about a particular matter.  As to
00:53:30    2   whether he's aware of something, I
00:53:33    3   understand your objection to be a
00:53:35    4   general objection, which I think we
00:53:38    5   discussed we would address after the
00:53:43    6   testimony has been presented.  And I
00:53:47    7   think that's what you're ---.
00:53:50    8                   ATTORNEY WIYGUL:
00:53:50    9                   I don't --- I think it
00:53:51   10   goes beyond that, Your Honor.  I think
00:53:52   11   --- and I apologize if I'm confusing
00:53:54   12   the matter.  But the objection is that
00:53:56   13   in the report that the witness filed,
00:53:59   14   what was it, the day before yesterday,
00:54:01   15   irrespective of any issues we may have
00:54:05   16   about the fact that he was not the
00:54:06   17   initial expert disclosed by that
00:54:11   18   party, et cetera, my objection is this
00:54:15   19   information about this resolution was
00:54:17   20   not anywhere in his report.  I have
00:54:18   21   his report.  It's a burdensome report.
00:54:18   22   And I had understood the Court's
00:54:20   23   ruling to be consistent with what, I
00:54:21   24   think, the general approach to
00:54:25   25   disclosure requirements regarding
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00:54:26   1   experts and expert reports, that

00:54:27   2   because it was outside the scope of

00:54:28   3   the Court, it could not then be the

00:54:30   4   basis of testimony at the hearing. So

00:54:33   5   that is the primary basis of the

00:54:34   6   objection I'm lodging today.

00:54:36   7   ATTORNEY HAVERSTICK:

00:54:37   8   It did happen after the

00:54:39   9   report was submitted, so it's not as

00:54:40   10   if we could have put this in the

00:54:42   11   report. I think it only happened a

00:54:48   12   day or two. I don't meant to ---.

00:54:49   13   JUDGE McCULLOUGH:

00:54:49   14   I'd have to say I'm

00:54:49   15   going to have to check the record.

00:54:51   16   I'm not on the same page with you

00:54:52   17   about the Court's ruling if you're

00:54:54   18   referencing the demonstrative exhibit

00:54:58   19   that you attempted to offer yesterday.

00:55:03   20   But at this juncture ---

00:55:06   21   ATTORNEY HAVERSTICK:

00:55:06   22   I'm moving on.

00:55:07   23   JUDGE McCULLOUGH:

00:55:07   24   --- Mr. Haverstick is

00:55:09   25   moving on. He is not going to further

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00:55:12    1    question the witness about this.
00:55:13    2                        And the Court will give
00:55:14    3    that testimony which occurred prior to
00:55:24    4    the attempt to introduce the
00:55:25    5    resolution its due weight.  And if the
00:55:26    6    Court then decides it's no weight,
00:55:29    7    that's what I will do.
00:55:30    8                        ATTORNEY WIYGUL:
00:55:31    9                        Thank you, Your Honor.
00:55:33   10                        ATTORNEY SENOFF:
00:55:33   11                        Your Honor, I would just
00:55:35   12    say we would --- we asked for an offer
00:55:37   13    of proof because I believe the only
00:55:39   14    question that Counsel got to was have
00:55:41   15    you ever seen this.  But based on
00:55:42   16    Counsel's representation that he
00:55:45   17    doesn't intend to further question on
00:55:47   18    this document, then we would withdraw
00:55:50   19    that request.  Thank you.
00:55:52   20                        JUDGE McCULLOUGH:
00:55:52   21                        Okay.
00:55:52   22                        Thank you very much.
00:55:55   23                        ATTORNEY GORDON:
00:55:56   24                        And Your Honor, just for
00:55:57   25    the record, very briefly, I'd like to
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00:55:58    1    - - - .
00:55:58    2                        JUDGE McCULLOUGH:
00:55:59    3                        Can you take your mask
00:56:00    4    off?  I never can understand you with
00:56:00    5    a mask on.
00:56:00    6                        ATTORNEY GORDON:
00:56:00    7                        I apologize.
00:56:00    8                        JUDGE MCCULLOUGH:
00:56:00    9                        That's okay.
00:56:00   10                        ATTORNEY GORDON:
00:56:02   11                        Matthew Gordon.
00:56:03   12                        Just for the record, we
00:56:05   13    join in the Governor's Counsel's
00:56:07   14    objection to testimony going beyond
00:56:08   15    the four points of the expert report.
00:56:10   16                        JUDGE McCULLOUGH:
00:56:10   17                        Okay.  So noted.
00:56:17   18                        THE WITNESS:
00:56:18   19                        And Bucks County has
00:56:19   20    commissioners - - - oh, I'm sorry.
00:56:19   21                        JUDGE McCULLOUGH:
00:56:19   22                        You have to wait until
00:56:19   23    your Counsel asks you a question.
00:56:19   24                        THE WITNESS:
00:56:21   25                        I'm sorry.  I'm sorry.
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00:56:21   1    I was just trying to correct a

00:56:23   2    mistake.

00:56:23   3                          ATTORNEY HAVERSTICK:

00:56:23   4                          You got to wait for a

00:56:24   5    question.

00:56:24   6                          THE WITNESS:

00:56:24   7                          I apologize.

00:56:24   8    BY ATTORNEY HAVERSTICK:

00:56:26   9    Q.       And we're not going to talk

00:56:27  10    about this anymore.

00:56:28  11             Okay?

00:56:28  12             I'm going to ask you one more

00:56:30  13    question about Bucks, but I don't want

00:56:32  14    you to talk about the thing.

00:56:34  15    A.       I actually wasn't.  I was just

00:56:35  16    correcting a mistake.

00:56:35  17    Q.       Very good.  Other than the

00:56:36  18    thing that we're not talking about

00:56:38  19    anymore, are there any other

00:56:39  20    observations you want to make about

00:56:41  21    Bucks County and Philadelphia beyond

00:56:43  22    your testimony?  And if the answer is

00:56:44  23    no, that's fine.

00:56:46  24    A.       The form of government of Bucks

00:56:47  25    County is a commissioner form of
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00:56:49    1   government, not council.
00:56:54    2   Q.        The last big pictures to
00:56:58    3   discuss, Luzerne County, Lackawanna
00:57:01    4   County.  Same districts, different
00:57:03    5   districts?
00:57:04    6   A.        Well, I think that different
00:57:07    7   districts makes a lot of sense because
00:57:09    8   I think it's what people up there
00:57:12    9   want.  For many years, Scranton and
00:57:23   10   Wilkes-Barre have been in different
00:57:25   11   congressional districts.
00:57:25   12           Now, that changed in 2002, when
00:57:25   13   the Republican Senate was drawing the
00:57:29   14   map and they wanted to help out Don
00:57:31   15   Sherwood up there, so they pulled the
00:57:34   16   City of Scranton out of his district,
00:57:35   17   the 10th.  And that was over the
00:57:36   18   objections of Sherwood and of, as I
00:57:38   19   understand it, the Republican Mayor
00:57:42   20   Connors up there.  They wanted to keep
00:57:43   21   the district whole.
00:57:44   22           And in 2012, again, when those
00:57:48   23   communities didn't have power over the
00:57:53   24   process, they were also kept whole.
00:57:55   25   And in the Supreme Court's draw where
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00:57:57    1    they didn't have power over process,
00:57:59    2    they were also kept whole.
00:58:01    3           But I think that they would
00:58:02    4    like to go back to the situation where
00:58:04    5    they each had a member of Congress,
00:58:07    6    where they would have more power.  And
00:58:08    7    I think on this map, for example, if
00:58:10    8    we're looking at the 7th, you know,
00:58:13    9    Scranton would be the largest
00:58:14    10   municipal unit in the district.  It's
00:58:19    11   --- as I said earlier, it's a very
00:58:19    12   sort of homer vote.  They vote for
00:58:24    13   their hometown folks.  That Lackawanna
00:58:26    14   County is a very powerful block.
00:58:28    15          Let's see.  I mean, I feel
00:58:30    16   confident that it is the highest
00:58:31    17   population county in that district.  I
00:58:36    18   think that will be confirmed when you
00:58:41    19   review the census data.
00:58:43    20          So any member elected in the
00:58:44    21   7th has either got to come from that
00:58:45    22   block or is going to have to take very
00:58:47    23   careful attention to the Scranton area
00:58:51    24   to forestall a primary challenge or a
00:58:56    25   loss in the general election.
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00:58:57    1              Meanwhile, if you look at the

00:58:58    2    10th, and, you know, you keep Luzerne

00:59:00    3    together.  That's a very good unit.

00:59:03    4    That will be a Wilkes-Barre seat.  And

00:59:06    5    then the two of them would have

00:59:10    6    members like they've had for years and

00:59:12    7    years.  I mean, back in the days of

00:59:12    8    McDade and Flood and McDade and

00:59:12    9    Canjorsky.  I think that's what

00:59:12   10    they're used to.  I think that's what

00:59:21   11    their preference would be.  That's my

00:59:22   12    opinion.

00:59:22   13    Q.        Okay.

00:59:27   14              I want to take the balance of

00:59:28   15    our time to talk about some particular

00:59:31   16    maps and your observations of those

00:59:33   17    particular maps for the Court.

00:59:34   18              Okay?

00:59:35   19    A.        Sure.

00:59:35   20                        ATTORNEY HAVERSTICK:

00:59:37   21              Could we put up the

00:59:38   22    Carter map, please?  Okay.

00:59:51   23    BY ATTORNEY HAVERSTICK:

00:59:51   24    Q.        Dr. Naughton, I think this is

00:59:54   25    the best we're going to be able to do.
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00:59:54    1    A.        Yeah.   This is my primary ---
00:59:54    2    oh sorry.   I apologize.
00:59:56    3    Q.        So start out by saying I think
01:00:02    4    this is the best thing we can do in
01:00:03    5    terms of what you can see.   So if you
01:00:05    6    need to zoom or anything, just call
01:00:08    7    out.
01:00:08    8    A.        Just pull up the Allegheny
01:00:08    9    County section because that's, I
01:00:09   10    think, the primary issue with this
01:00:10   11    map.
01:00:10   12    Q.        Okay.
01:00:13   13    A.        As I said before, you know, if
01:00:15   14    I'm putting ---.
01:00:15   15                        ATTORNEY GORDON:
01:00:15   16                        Your Honor?
01:00:16   17                        JUDGE McCULLOUGH:
01:00:16   18                        Yes.
01:00:17   19                        ATTORNEY GORDON:
01:00:18   20                        Reflecting my earlier
01:00:22   21    objection, I don't recall.   Maybe I'm
01:00:24   22    missing the report, but I don't recall
01:00:25   23    the report discussing the Carter maps
01:00:27   24    or the Carter maps --- particularly
01:00:30   25    the allegation concerning Allegheny
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`01:00:31` 1   County. I don't think this is a part

`01:00:33` 2   of that consistent with my

`01:00:34` 3   understanding, which is consistent

`01:00:36` 4   with the Governor's and the limitation

`01:00:38` 5   of expert testimony, what was

`01:00:40` 6   contained within the reports. I would

`01:00:41` 7   object to the witness now testifying

`01:00:43` 8   about a map and features of the map

`01:00:45` 9   that I don't think he discussed in his

`01:00:47` 10 report.

`01:00:51` 11   ATTORNEY HAVERSTICK:

`01:00:51` 12   Your Honor, there's a

`01:00:52` 13 footnote in the report in which Dr.

`01:00:54` 14 Naughton references that he has

`01:00:55` 15 commentary on lots of the different

`01:00:57` 16 maps and lots of different regions.

`01:00:59` 17 He called out a couple for the sake of

`01:01:02` 18 brevity.

`01:01:02` 19   I hazard to guess that

`01:01:06` 20 yesterday's Directs went outside of

`01:01:09` 21 what was specifically in each of the

`01:01:11` 22 reports. Certainly the Crosses did.

`01:01:13` 23   He's testified about

`01:01:15` 24 today and put in his report the

`01:01:18` 25 factors that he thinks are important

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01:01:20    1    to understand beyond computer
01:01:23    2    modeling, you know, when you're
01:01:25    3    drawing maps.  He can't possibly apply
01:01:28    4    that in a way that's meaningful unless
01:01:31    5    he's allowed to look at maps and
01:01:34    6    comment on it.  But his commentary and
01:01:36    7    his methodology and where it's coming
01:01:39    8    from was the heart of the report.
01:01:39    9                    And now they're going to
01:01:40   10    say that we --- because we didn't
01:01:41   11    specifically talk about splitting
01:01:45   12    Venango, that he can't talk about it?
01:01:45   13    That's silly.
01:01:48   14                    ATTORNEY GORDON:
01:01:48   15                    Your Honor, I don't
01:01:48   16    think he talks about the Carter map at
01:01:50   17    all.  The footnote that Counsel seems
01:01:51   18    to be referencing, the footnote that
01:01:51   19    says I have, of course, reviewed the
01:01:55   20    maps.  It talks about regarding areas
01:01:57   21    other than Philadelphia and
01:01:59   22    Pittsburgh.  He does talk about
01:02:01   23    Pittsburgh at length in his expert
01:02:03   24    report, but he doesn't --- again, I
01:02:07   25    don't believe he mentions the Carter
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01:02:10   1   map at all.

01:02:11   2   ATTORNEY HAVERSTICK:

01:02:11   3   Is the Carter map so bad

01:02:13   4   that he didn't put Pittsburgh on it?

01:02:15   5   I mean, I see it up there. If the

01:02:17   6   objection is, well, he didn't --- you

01:02:17   7   know, he can only talk about specific

01:02:19   8   city or place names he put in the

01:02:21   9   report, he talked about Pittsburgh.

01:02:22   10   So at a minimum, he

01:02:25   11   should be allowed to look at every map

01:02:27   12   and say here's where I think Allegheny

01:02:27   13   County and politically what I think of

01:02:30   14   how the map drew it.

01:02:31   15   ATTORNEY GORDON:

01:02:31   16   He had an opportunity to

01:02:32   17   do that in his report. He had

01:02:34   18   criticisms of other maps. He had

01:02:36   19   those maps just like --- he had as

01:02:37   20   much time with the other maps as every

01:02:40   21   other expert. And despite Counsel's

01:02:43   22   hazarding a guess about the

01:02:43   23   examinations yesterday, there was no

01:02:45   24   objection, as far as I'm aware,

01:02:49   25   yesterday's expert going beyond the

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`01:02:51`   1   scope of his reports. We're simply

`01:02:53`   2   asking that this expert be treated the

`01:02:55`   3   same as every other expert, that he be

`01:02:57`   4   limited to what he discussed in his

`01:02:59`   5   report.

`01:02:59`   6   ATTORNEY HAVERSTICK:

`01:03:00`   7   And he's about to.

`01:03:01`   8   ATTORNEY WIYGUL:

`01:03:01`   9   And, Your Honor, I just

`01:03:02`   10   want to qualify. I generally agree

`01:03:03`   11   with Counsel with the exception that

`01:03:05`   12   there being no objection because there

`01:03:07`   13   was, of course, objection to my

`01:03:08`   14   witnesses reportedly going beyond the

`01:03:10`   15   scope of the report, and I will note

`01:03:11`   16   that as an issue and as we described

`01:03:13`   17   - - -.

`01:03:13`   18   JUDGE McCULLOUGH:

`01:03:14`   19   Let's be clear though,

`01:03:15`   20   Mr. Wiygul. What you were attempting

`01:03:20`   21   to offer was another configuration,

`01:03:21`   22   another chart which involved

`01:03:23`   23   calculation of statistics. Counsel's

`01:03:27`   24   objection was that they couldn't have

`01:03:28`   25   time to review that and assess that

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01:03:30    1    and give that to their experts.
01:03:32    2                    You are now objecting to
01:03:33    3    someone commenting on a map which they
01:03:37    4    all have.  This is not new evidence.
01:03:41    5                    And the expert, as I
01:03:42    6    understand, Mr. Haverstick, if I
01:03:44    7    understand what you just said, is
01:03:47    8    attempting to talk about the region
01:03:49    9    which he addressed ---
01:03:51   10                    ATTORNEY HAVERSTICK:
01:03:51   11                    In his report.
01:03:52   12                    JUDGE McCULLOUGH:
01:03:52   13                    --- in his report.  If
01:03:54   14    we can limit it to that.
01:03:56   15                    ATTORNEY HAVERSTICK:
01:03:56   16                    Well, if --- I'll omit
01:04:01   17    discussions of other parts of the
01:04:04   18    state and concentrate on those areas
01:04:06   19    that I think they will agree were
01:04:09   20    specifically called out in the report.
01:04:09   21    You know, Philadelphia, Bucks County,
01:04:14   22    on the one hand and the Allegheny
01:04:15   23    County/Pittsburgh region on the other.
01:04:17   24    I mean, that will streamline my
01:04:18   25    ability to get this done.  I'll agree
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01:04:22    1    to that.
01:04:22    2                        JUDGE McCULLOUGH:
01:04:23    3                        Yeah, we don't want to
01:04:23    4    go outside the scope of the expert
01:04:25    5    reports.  So I'm, of course, going to
01:04:26    6    ask you to limit it to areas where he
01:04:27    7    specifically addresses, as I
01:04:29    8    understand it, you're talking about
01:04:33    9    Pittsburgh?
01:04:34   10                        ATTORNEY HAVERSTICK:
01:04:35   11                        Talking about Pittsburgh
01:04:36   12    --- Pittsburgh and Allegheny County,
01:04:37   13    because I think you're talking about
01:04:37   14    the same thing there.  And
01:04:39   15    Philadelphia and Bucks, because when
01:04:41   16    you talk about those two and you talk
01:04:43   17    about where people should go, you have
01:04:44   18    to naturally talk about the
01:04:46   19    surrounding communities.
01:04:47   20                        But yes, I will limit it
01:04:48   21    to those two communities.
01:04:49   22                        JUDGE McCULLOUGH:
01:04:50   23                        Well, I will allow you
01:04:51   24    to ask him in a very limited manner,
01:04:54   25    you know, about the
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`01:04:54`   1   Pittsburgh/Allegheny area on which he

`01:04:58`   2   opined throughout his report.

`01:05:00`   3   ATTORNEY WIYGUL:

`01:05:00`   4   If I may clarify, Your

`01:05:01`   5   Honor. I think part of the question I

`01:05:02`   6   asked is whether the witness will be

`01:05:03`   7   allowed --- I think he wants to talk

`01:05:03`   8   --- we can talk about his report, I

`01:05:03`   9   have no objection to that. But if

`01:05:03`   10   he's then going to go further and

`01:05:12`   11   start critiquing particular maps which

`01:05:12`   12   did not appear anywhere in his report,

`01:05:14`   13   I would object to that.

`01:05:15`   14   And I would note that all the

`01:05:16`   15   other experts in their rebuttal

`01:05:18`   16   reports did include critiques where

`01:05:21`   17   they had them of the other maps and

`01:05:23`   18   disclosed that critique in their

`01:05:26`   19   rebuttal report. So I don't believe

`01:05:26`   20   that would be proper, and the Governor

`01:05:28`   21   would object to that.

`01:05:29`   22   ATTORNEY GORDON:

`01:05:29`   23   And, Your Honor, that's

`01:05:30`   24   the nature of my objection as well.

`01:05:31`   25   If the witness wants to talk about his

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01:05:33    1    analysis of Pittsburgh and
01:05:35    2    Philadelphia as set forth in the
01:05:36    3    report, that's fine.
01:05:37    4                    What Counsel appears to
01:05:38    5    be doing is asking the witness to
01:05:41    6    offer a critique of the Carter map.
01:05:44    7    That critique is not contained in his
01:05:46    8    report.  There is no mention of the
01:05:47    9    Carter map in his report.  And Matt
01:05:51   10    didn't put us on notice, my clients
01:05:52   11    and me on notice, that he wanted to
01:05:55   12    critique the Carter map.  If he wanted
01:05:57   13    to do that, he's fine to do that.
01:05:59   14                    JUDGE McCULLOUGH:
01:05:59   15                    I think you --- well,
01:05:59   16    Counsel, I strongly disagree with that
01:06:01   17    last statement.  You're all on notice
01:06:03   18    that your maps could be critiqued by
01:06:06   19    --- at this --- in this courtroom.  So
01:06:10   20    to say you're not prepared to defend a
01:06:12   21    critique of the map is not --- to me
01:06:14   22    is not a genuine concern.  But I
01:06:17   23    understand your statement about going
01:06:20   24    outside the scope of the expert
01:06:23   25    report.  I think limiting his
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01:06:25   1      testimony to areas on which he has
01:06:27   2      already opined, to me, is still within
01:06:35   3      his expert report.
01:06:37   4                       But please be careful
01:06:40   5      not to go off the scope of his report.
01:06:46   6                       ATTORNEY HAVERSTICK:
01:06:46   7                       I will specifically
01:06:47   8      confine my questions on these maps to
01:06:50   9      two regions, Allegheny
01:06:53  10      County/Pittsburgh, Philadelphia/Bucks.
01:06:56  11                       ATTORNEY GORDON:
01:06:56  12                       And, Your Honor, we
01:06:57  13      certainly --- it's certainly the case
01:07:00  14      that we came here expecting that each
01:07:02  15      of our maps would be critiqued by
01:07:05  16      other experts.  We expected that any
01:07:07  17      such critique would be disclosed in
01:07:10  18      the report.  This was not disclosed in
01:07:12  19      the report.
01:07:12  20                       ATTORNEY HAVERSTICK:
01:07:13  21                       Of course it was.
01:07:14  22                       JUDGE McCULLOUGH:
01:07:15  23                       If I understand you, Mr.
01:07:16  24      Haverstick, you're not offering
01:07:18  25      critique of this map.  You're looking
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`01:07:20`   1   at the particular areas of which your

`01:07:21`   2   expert has already opined?

`01:07:23`   3   ATTORNEY HAVERSTICK:

`01:07:23`   4   I view these maps as

`01:07:25`   5   demonstrable exhibits. And he's

`01:07:27`   6   already opined about what he thinks

`01:07:27`   7   from a political geographic standpoint

`01:07:30`   8   about Allegheny County specifically,

`01:07:32`   9   and Philadelphia, the city, county

`01:07:34`   10   specifically, and Bucks. That's in

`01:07:36`   11   his report.

`01:07:36`   12   He's not allowed to

`01:07:37`   13   comment on documents that they've put

`01:07:39`   14   into evidence? I mean, all of these

`01:07:41`   15   maps are into evidence, Your Honor.

`01:07:43`   16   If they're saying that he can't

`01:07:44`   17   comment on things that they put in

`01:07:46`   18   evidence, I hope ---.

`01:07:47`   19   JUDGE McCULLOUGH:

`01:07:47`   20   And that last point I

`01:07:49`   21   think is just what I was about to say.

`01:07:51`   22   These are all in evidence, unlike the

`01:07:53`   23   demonstrative chart that was proposed

`01:07:56`   24   to be introduced through your witness

`01:07:59`   25   yesterday, Mr. Wiygul. It was a whole

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`01:08:02` 1   other configuration. Even though he

`01:08:04` 2   said it was, you know, just pictures,

`01:08:06` 3   it presented new statistics.

`01:08:07` 4   This is not new. This

`01:08:08` 5   is in evidence. So I'm going to allow

`01:08:10` 6   Mr. Haverstick to question his witness

`01:08:13` 7   to the extent that he has opined on

`01:08:15` 8   certain areas if you want to. And

`01:08:20` 9   your objections are noted.

`01:08:22` 10   ATTORNEY WIYGUL:

`01:08:23` 11   In response to Your

`01:08:25` 12 Honor's last comment, just to preserve

`01:08:27` 13 my offer of proof on the exhibits

`01:08:30` 14 yesterday, I believe Dr. Duchin's

`01:08:33` 15 testimony was the graphs that we were

`01:08:33` 16 going to show, that were not allowed

`01:08:34` 17 into evidence were --- in fact the

`01:08:35` 18 data for those was disclosed in the

`01:08:37` 19 report.

`01:08:38` 20   What wasn't disclosed is the

`01:08:40` 21 particular visualization that we

`01:08:41` 22 wanted to show. So I just wanted to

`01:08:43` 23 make that clear for the record.

`01:08:44` 24   JUDGE McCULLOUGH:

`01:08:44` 25   Okay.

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01:08:45    1                    ATTORNEY WIYGUL:
01:08:46    2               Thank you.
01:08:46    3                    JUDGE McCULLOUGH:
01:08:46    4               Thank you.
01:08:47    5                    ATTORNEY HAVERSTICK:
01:08:47    6               May I proceed?
01:08:48    7                    JUDGE McCULLOUGH:
01:08:48    8               Yes.
01:08:49    9                    ATTORNEY HAVERSTICK:
01:08:50   10               Thank you, Your Honor.
01:08:50   11      BY ATTORNEY HAVERSTICK:
01:08:53   12      Q.        Now, Dr. Naughton, I know you
01:08:56   13      were in the room for all of that.  We
01:08:57   14      need to be very careful when we're
01:08:59   15      talking about the Carter maps and the
01:09:01   16      other maps that focus on Allegheny
01:09:01   17      County?
01:09:02   18      A.        Yes, absolutely.
01:09:03   19      Q.        So do you have any critiques of
01:09:09   20      the Carter map with respect to that
01:09:10   21      region?
01:09:11   22      A.        You know, like I said earlier,
01:09:12   23      I would absolutely not separate
01:09:14   24      Wilkinsburg into a separate district.
01:09:16   25      I think it should absolutely be
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01:09:20    1    integrated with the city.  I think
01:09:21    2    that's a mistake.
01:09:21    3           And you have this bulge on the
01:09:21    4    eastern side of Penn Hills, and I
01:09:21    5    believe that's Verona and Oakmont.  I
01:09:30    6    think that's the extent of it.  I
01:09:31    7    wouldn't put Penn Hills over there.  I
01:09:34    8    mean, it's --- I might put Oakmont in
01:09:37    9    with the 17th because, you know, it's
01:09:38   10    right across the Fulton Bridge.  So
01:09:38   11    there is some connection there.  A lot
01:09:42   12    of people sort of commute over and go
01:09:43   13    down the expressway there.  So you
01:09:47   14    know, maybe Oakmont.
01:09:48   15           But I would certainly not have
01:09:51   16    this bulge and separate these
01:09:53   17    communities that are really associated
01:09:55   18    with Allegheny County.  And it's very
01:09:57   19    easily remedied because you've got the
01:10:00   20    South Hills split up.  You know,
01:10:00   21    you've got Upper St. Clair and Bethel
01:10:07   22    Park in with the 12, stretching out
01:10:09   23    through the valley.  I mean, Bethel
01:10:11   24    Park and Upper St. Clair are much more
01:10:18   25    compatible with Mt. Lebanon and
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01:10:19	1	Bridgeville and South Fayette and, you
01:10:25	2	know, and those communities. They
01:10:26	3	match together.
01:10:27	4	You're putting --- you're
01:10:27	5	taking --- you're taking a big chunk
01:10:28	6	of Allegheny County, that's really
01:10:31	7	related to the city, and you're tying
01:10:35	8	it in with that north region. And
01:10:37	9	then you're taking and you're
01:10:39	10	splitting up this --- this doesn't
01:10:41	11	make any sense. I mean, I would not
01:10:43	12	have the 12th and 17th District lines
01:10:47	13	sliced through the parking lot at
01:10:50	14	South Hills Village.
01:10:50	15	Q. Let's slide over to the eastern
01:10:52	16	part of the state and take a look at
01:10:54	17	Philadelphia County. And we will zoom
01:10:57	18	in there to Philly and the collar
01:11:05	19	counties. Do you have any critique of
01:11:07	20	the Carter map and how it treats the
01:11:08	21	Philadelphia area?
01:11:09	22	A. I think that it's Bucks
01:11:10	23	District, number one. I think it's
01:11:12	24	very good. Within the City of
01:11:14	25	Philadelphia, you know, I haven't

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01:11:17    1    represented expertise.  I don't mean
01:11:18    2    to.  I just like the idea that you've
01:11:22    3    got two fully-contained seats within
01:11:22    4    the city.  And I think I said that in
01:11:25    5    my report.  I think that makes a lot
01:11:26    6    of sense.
01:11:27    7           Am I allowed to talk about 4
01:11:29    8    and 5?
01:11:30    9    Q.    Well, if it relates to --- if
01:11:32   10    it relates in any way to the
01:11:34   11    relationship between Bucks and
01:11:35   12    Philadelphia?
01:11:45   13    A.     I don't think it does.  I mean,
01:11:46   14    I don't think there are big problems
01:11:51   15    with 4, 5 and 6.  I mean, there's more
01:11:51   16    sort of --- I can express a little
01:11:53   17    personal preference, but I mean, I
01:11:53   18    don't --- I don't want to stray out of
01:11:55   19    my boundaries, but ---.
01:11:56   20    Q.     Let's not.
01:11:57   21    A.     I don't know.  I'd pull 4 out
01:11:59   22    of Berks a little bit and I'd move
01:11:59   23    that 5.  I'd probably put 5 more into
01:12:05   24    Chester and I'd have 4 ---.
01:12:05   25           ATTORNEY GORDON:
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01:12:06   1   Objection.

01:12:11   2   JUDGE McCULLOUGH:

01:12:11   3   Excuse me.

01:12:11   4   THE WITNESS:

01:12:11   5   Have I gone beyond?   I

01:12:13   6   apologize.

01:12:13   7   ATTORNEY HAVERSTICK:

01:12:13   8   Stop.

01:12:13   9   JUDGE MCCULLOUGH:

01:12:13   10   Counsel, you have an

01:12:13   11   objection?

01:12:13   12   ATTORNEY GORDON:

01:12:15   13   Continuing objection to

01:12:16   14   all this testimony.   It's all a

01:12:18   15   critique of his argument.   None of it

01:12:21   16   was in the report, as I stated before.

01:12:22   17   And the objection --- the witness just

01:12:23   18   said I don't want to stray out my

01:12:26   19   boundaries.   Counsel said keep it to

01:12:29   20   Philadelphia, and now he's trying to

01:12:30   21   do exactly what he said.

01:12:33   22   JUDGE McCULLOUGH:

01:12:33   23   Yes, I'm going to

01:12:34   24   sustain that part of your objection.

01:12:35   25   And please move on with your witness.

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01:12:35   1   ATTORNEY HAVERSTICK:

01:12:35   2   We will.

01:12:35   3   JUDGE MCCULLOUGH:

01:12:35   4   Thank you, Mr.

01:12:40   5   Haverstick.

01:12:40   6   ATTORNEY HAVERSTICK:

01:12:41   7   Please pull up the

01:12:42   8   Gressman map.

01:12:42   9   BY ATTORNEY HAVERSTICK:

01:12:43   10   Q.   And I direct your attention on

01:12:47   11   the Gressman map to the Allegheny

01:12:47   12   County/Pittsburgh region. Do you have

01:12:51   13   any commentary on the treatment of

01:12:56   14   that region on this map?

01:12:58   15   A.   Well, the first problem is

01:12:58   16   there's a section of the city that

01:12:59   17   crosses the river and goes off to the

01:13:02   18   southeast. It includes Hayes and

01:13:05   19   Lincoln Place and New Homestead. And

01:13:09   20   that area is very well integrated into

01:13:12   21   the rest of the Mon Valley.

01:13:15   22   I mean, Lincoln Place

01:13:16   23   neighborhood is half the --- it's

01:13:20   24   nearly twice as far to get to

01:13:24   25   Allegheny County Courthouse as it does

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01:13:26   1    to get to McKeesport.  So the center

01:13:27   2    of McKeesport.  So it's very

01:13:29   3    integrated in the Valley.  So I think

01:13:30   4    it's a mistake, you know, again,

01:13:32   5    separating that out.  I'd really,

01:13:34   6    again, connect that into the Mon

01:13:34   7    Valley.

01:13:38   8            But there's also a very

01:13:39   9    specific issue, which is that part of

01:13:43   10   the New Homestead development is only

01:13:47   11   publicly accessible via the 17th

01:13:50   12   District.  Now, you can get to New

01:13:53   13   Homestead from within the 14th if you

01:13:56   14   put on some hiking boots and did a

01:13:59   15   little trespassing.  But if you want

01:14:02   16   public access via a vehicle or

01:14:05   17   sidewalk, you would have to go outside

01:14:08   18   the 14th and through the 17th to get

01:14:14   19   there.

01:14:14   20           I mean, I think just generally

01:14:15   21   --- and I think I've said this before,

01:14:16   22   if I'm looking at where Pittsburgh

01:14:18   23   matches up, it's East Hills and Mon

01:14:22   24   Valley, less so than this sort of

01:14:23   25   attachment to the South Hills.
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01:14:25    1              And again, it's my belief that
01:14:29    2     this is being driven by this Polsby
01:14:33    3     model, which is a very good model.
01:14:35    4     I'm not arguing the model, and it may
01:14:39    5     work in a lot of contexts.  But in the
01:14:39    6     very specific context of this part of
01:14:42    7     the state, given the municipal
01:14:43    8     boundaries, given how it's developed
01:14:46    9     over time, I don't think it is a good
01:14:48   10     fit.  It's like trying to put a square
01:14:50   11     peg in a round hole.  And you know,
01:14:52   12     you're looking for a hammer instead of
01:14:55   13     a round peg.  Go look for a round peg.
01:14:57   14     Q.      Switch over to the eastern half
01:14:59   15     of the state.  Let's look at Philly
01:15:01   16     and Bucks.  And I'd ask you to keep
01:15:02   17     your commentary limited to that
01:15:06   18     interaction.  You know, if that has
01:15:08   19     some effect on Mon Co or Chest Co or
01:15:08   20     Del Co ---.
01:15:14   21     A.      Yeah, I apologize for going
01:15:14   22     beyond --- I apologize for that.  I
01:15:16   23     don't think the two should be reaching
01:15:19   24     into Bucks and as far into Lower
01:15:23   25     Bucks.  I mean, Bucks County is a
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01:15:25   1   diverse county, that is true.  But,
01:15:28   2   again, it works together politically.
01:15:32   3   They've been a unit for decades.
01:15:36   4           Meanwhile, you know, why are
01:15:40   5   you moving in --- you know, why aren't
01:15:42   6   you drawing two seats entirely within
01:15:44   7   the City of Philadelphia for advocacy.
01:15:47   8           There's also a risk here, I
01:15:48   9   think, because this Lower Bucks area
01:15:51   10  is so unusual.  And I believe this
01:15:54   11  would be a heavily Democratic seat.  I
01:15:57   12  think the concentration of constituent
01:15:57   13  service, of issue advocacy would be
01:16:05   14  focused on northeast Philly and those
01:16:06   15  areas.  I think Lower Bucks really
01:16:08   16  sort of loses out on representation by
01:16:12   17  a putative member.
01:16:12   18                   ATTORNEY HAVERSTICK:
01:16:20   19           Let's call up the
01:16:22   20  Governor's map, please.
01:16:22   21  BY ATTORNEY HAVERSTICK:
01:16:24   22  Q.      All right.
01:16:24   23          Directing your attention to
01:16:26   24  Allegheny County and Pittsburgh.  You
01:16:28   25  know the question.
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01:16:28    1    A.        I wouldn't split up the city.
01:16:30    2                         ATTORNEY WIYGUL:
01:16:31    3                         I'm sorry, Your Honor.
01:16:32    4    I'd like to make sure that I renew my
01:16:34    5    objection with respect to the
01:16:35    6    Governor's map in particular.  I
01:16:36    7    understand Your Honor's going to
01:16:38    8    overrule it based on what you said
01:16:40    9    earlier, but I did want to get that
01:16:42   10    objection and Your Honor's ruling on
01:16:45   11    the record, please.
01:16:45   12                         JUDGE McCULLOUGH:
01:16:45   13                         Is your objection that
01:16:47   14    it was not in the report?
01:16:50   15                         ATTORNEY WIYGUL:
01:16:50   16                         That he's critiquing the
01:16:52   17    Governor's map, yes.
01:16:52   18                         JUDGE McCULLOUGH:
01:16:52   19                         So I, again, would
01:16:53   20    instruct Mr. Haverstick to limit his
01:16:56   21    witness to testimony about the two
01:17:00   22    areas in which he opined previously.
01:17:03   23                         ATTORNEY HAVERSTICK:
01:17:04   24                         Understood.
01:17:04   25                         JUDGE McCULLOUGH:
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01:17:05   1   And I have another.

01:17:07   2   Counsel.

01:17:07   3   ATTORNEY SENOFF:

01:17:08   4   Your Honor, I don't have

01:17:09   5   an objection. Just a request because

01:17:11   6   when we go back and read the record,

01:17:13   7   could you put the question on the

01:17:14   8   record? Thank you.

01:17:15   9   ATTORNEY HAVERSTICK:

01:17:15   10   Yes, Mr. Senoff is

01:17:18   11   right.

01:17:18   12   JUDGE McCULLOUGH:

01:17:18   13   So we want to read the

01:17:20   14   question back?

01:17:21   15   ATTORNEY HAVERSTICK:

01:17:21   16   No, I didn't ask --- I

01:17:22   17   said something like same question or

01:17:22   18   you know the question. And I think

01:17:25   19   Mr. Senoff's right. The record

01:17:25   20   probably should actually have the

01:17:26   21   question in it.

01:17:26   22   BY ATTORNEY HAVERSTICK:

01:17:28   23   Q.   Dr. Naughton, do you have any

01:17:31   24   commentary or critique of the

01:17:33   25   Governor's map with respect to

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`01:17:36` 1   Allegheny County and Pittsburgh?

`01:17:37` 2   A.   I don't think the city should

`01:17:39` 3   be split up. I think it'S a mistake.

`01:17:45` 4   You know, if we're looking at

`01:17:47` 5   common interests, I mean, you're going

`01:17:48` 6   to put --- you're going to split up

`01:17:49` 7   the city and put North View Heights

`01:17:52` 8   and Broadhead Manor and Esklin in with

`01:17:56` 9   Hooks Town and Beaver County? This

`01:17:57` 10   really just doesn't make a lot of

`01:17:59` 11   sense.

`01:18:00` 12   I think, as I've said before,

`01:18:02` 13   keep the city together. Keep it with

`01:18:04` 14   communities it's connected to, East

`01:18:07` 15   Hills and down into the Mon Valley.

`01:18:09` 16   And then sort of where you need to

`01:18:10` 17   add, you can add. But those suburban

`01:18:13` 18   areas are much more compatible with

`01:18:16` 19   Beaver County and certainly North View

`01:18:18` 20   Heights is not.

`01:18:20` 21   Q.   Let's swing over to the

`01:18:21` 22   southeast. Do you have any critiques

`01:18:30` 23   or commentary about the Governor's

`01:18:34` 24   rendition of the Philadelphia/Bucks

`01:18:34` 25   County region?

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`01:18:34` 1   A.   I don't agree with the addition

`01:18:36` 2   of the 2nd district into Bensalem and

`01:18:39` 3   the sort of associated communities.

`01:18:42` 4   This actually runs an even greater

`01:18:45` 5   risk than the previous map of lack of

`01:18:48` 6   representation, It's so dominated by

`01:18:49` 7   the city.

`01:18:49` 8   Bucks County should remain

`01:18:49` 9   whole. It's in the interest of their

`01:19:04` 10   voters and all citizens.

`01:19:04` 11   Q.   Lastly ---.

`01:19:04` 12   A.   Sorry. And all their citizens

`01:19:04` 13   I should say.

`01:19:04` 14   ATTORNEY HAVERSTICK:

`01:19:06` 15   Lastly, can we call up

`01:19:08` 16   the Senate Democratic map, please?

`01:19:09` 17   Actually, no, it's not a

`01:19:12` 18   Democratic map.

`01:19:12` 19   BY ATTORNEY HAVERSTICK:

`01:19:14` 20   Q.   Focusing on Allegheny County

`01:19:16` 21   and Pittsburgh, do you have any

`01:19:18` 22   critiques of the Senate Democratic map

`01:19:21` 23   with respect to this region?

`01:19:23` 24   A.   I disagree with splitting up

`01:19:26` 25   the city. I don't think that area is

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01:19:32    1    as great a common interest with areas
01:19:32    2    in Beaver County, as I said about the
01:19:39    3    previous map.  So I disagree with
01:19:41    4    splitting up the city.
01:19:42    5              And, again, it's not necessary.
01:19:43    6    You don't have to do it.
01:19:44    7    Q.      Okay.
01:19:45    8              If we could move to the
01:19:48    9    southeast, please.  Do you have any
01:19:50   10    critique or commentary about this
01:19:52   11    map's treatment of the Philadelphia
01:19:54   12    and Bucks region?
01:19:56   13    A.      May I speak about the 1st
01:19:58   14    district in its entirety or not?
01:20:06   15    Q.      Go ahead.  And we'll see if it
01:20:08   16    draws an objection?
01:20:08   17    A.      Okay.  All right.
01:20:10   18              I don't believe that the ---.
01:20:10   19              ATTORNEY ATTISANO:
01:20:11   20              Your Honor, Marco
01:20:11   21    Attisano on behalf of Senate
01:20:15   22    Democrats.  I object as outside the
01:20:16   23    expert report.
01:20:17   24              JUDGE McCULLOUGH:
01:20:17   25              You actually asked him
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01:20:18   1   for a critique of this map, and I

01:20:20   2   think we were trying to keep it

01:20:21   3   limited to just those areas, Mr.

01:20:26   4   Haverstick.

01:20:28   5   ATTORNEY HAVERSTICK:

01:20:28   6   Well, Philadelphia and

01:20:30   7   Bucks County. His testimony --- and I

01:20:31   8   know he objected it or they objected

01:20:31   9   to the resolution. I acknowledge

01:20:33   10   that. But there was no objection to

01:20:34   11   his prior testimony about Bucks County

01:20:37   12   and its people and wanting to be an

01:20:39   13   integrated unit. So I understood that

01:20:43   14   as long as we were talking about how

01:20:45   15   or whether to split Bucks, that was

01:20:46   16   something he talked about expressing.

01:20:49   17   JUDGE McCULLOUGH:

01:20:49   18   Yes.

01:20:50   19   ATTORNEY HAVERSTICK:

01:20:50   20   Yeah, that's all I'm

01:20:53   21   asking. Yes.

01:20:53   22   BY ATTORNEY HAVERSTICK:

01:20:53   23   Q.   Can you answer --- can you

01:20:56   24   answer --- can you give your answer

01:20:58   25   and express it in a way that answers

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`01:21:04` 1   the question of whether you have any

`01:21:06` 2   critiques of how and whether

`01:21:10` 3   Philadelphia and Bucks should be

`01:21:14` 4   merged in that way?

`01:21:15` 5   A.   Yes.

`01:21:16` 6   Q.   Go ahead.

`01:21:17` 7   A.   Well, as I said previously, I

`01:21:20` 8   don't believe that Lower Bucks should

`01:21:22` 9   be part of the 2nd District. I don't

`01:21:25` 10 believe it should be connected to the

`01:21:26` 11 city. I believe Bucks County should

`01:21:29` 12 remain whole and it unnecessarily

`01:21:32` 13 pushes the district into other regions

`01:21:35` 14 that are less connected with Bucks

`01:21:42` 15 County.

`01:21:42` 16   ATTORNEY HAVERSTICK:

`01:21:42` 17   Okay.

`01:21:43` 18   I think we're good with

`01:21:44` 19 the maps.

`01:21:44` 20 BY ATTORNEY HAVERSTICK:

`01:21:49` 21 Q.   Let's wrap up. Did you hear

`01:21:53` 22 yesterday several experts opine that

`01:21:58` 23 there was such a thing as a best map?

`01:21:59` 24 A.   I did hear that.

`01:22:02` 25 Q.   Do you agree that there can be

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01:22:05   1    such a thing as a best map?
01:22:07   2    A.       No.
01:22:07   3    Q.       Why not?
01:22:08   4    A.       It's too subjective.  This is
01:22:10   5    politics.  Politics is about --- it is
01:22:14   6    subjective, it's about perception.
01:22:16   7    Every single person is going to have a
01:22:20   8    favorite map or a best map based on
01:22:23   9    their own various opinions and based
01:22:25   10   on their own various experiences.  You
01:22:27   11   can't do a best map.  This isn't ---
01:22:34   12   you know, we're not reducing
01:22:35   13   equations.
01:22:36   14   Q.       One last question and then I
01:22:38   15   will likely have some for you on
01:22:40   16   rebuttal.  Is it your opinion, Dr.
01:22:45   17   Naughton, to a reasonable degree of
01:22:49   18   professional certainty, that we or the
01:22:51   19   Court can rely only on mathematical
01:22:53   20   models to create a good map?
01:22:55   21   A.       No.
01:22:56   22   Q.       Can you explain your answer?
01:22:57   23   A.       Because the factors that go
01:22:59   24   into what is best for a map, which is
01:23:03   25   far beyond just partisanship and vote
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`01:23:07` 1   totals, they are innumerable and --- I

`01:23:17` 2   shouldn't say innumerable. They are

`01:23:17` 3   very large and very involved. They

`01:23:21` 4   involve concepts of representation of

`01:23:21` 5   what's appropriate for people.

`01:23:22` 6   I think in one of the reports

`01:23:23` 7   that I read, it actually said that

`01:23:26` 8   some of the Supreme Court's

`01:23:28` 9   requirements were difficult to

`01:23:31` 10 quantify. Well, that's the whole

`01:23:33` 11 point. You can't perfectly quantify

`01:23:36` 12 everything. You can't create the

`01:23:38` 13 perfect variable to put into an

`01:23:41` 14 equation. It's just too complicated.

`01:23:43` 15 It really overwhelms the data and it's

`01:23:49` 16 too subjective.

`01:23:51` 17   There's going to be

`01:23:52` 18 subjectivity. That's just the way it

`01:23:54` 19 is. And we have to accept it and we

`01:23:55` 20 have to do the best job that we can to

`01:24:00` 21 provide people with their best

`01:24:01` 22 representation.

`01:24:09` 23   ATTORNEY HAVERSTICK:

`01:24:09` 24   I have no further

`01:24:11` 25 questions for the witness at this

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01:24:11   1   time.   I tender him for Cross.

01:24:13   2   Thanks, Dr. Naughton.

01:24:13   3   JUDGE McCULLOUGH:

01:24:14   4   Thank you.

01:24:14   5   We'll begin with Mr.

01:24:14   6   Gordon.

01:24:14   7   - - -

01:24:14   8   CROSS EXAMINATION

01:25:02   9   - - -

01:25:02   10   BY ATTORNEY GORDON:

01:25:03   11   Q.   Good morning, Dr. Naughton.

01:25:03   12   A.   Good morning.

01:25:03   13   Q.   I'll wait until you drink your

01:25:03   14   water.

01:25:03   15   A.   Okay.

01:25:15   16   Q.   My name is Matthew Gordon.   I'm

01:25:22   17   here on behalf of the Carter

01:25:24   18   Petitioners.

           19   A.   Nice to meet you.

           20   Q.   Nice to meet you as well.

           21   Thank you.

           22   Just some questions initially

           23   about your background, Dr. Naughton.

01:25:25   24   You testified that you have a lot of

01:25:26   25   experience in, I think, over 15 years

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01:25:29    1     of Pennsylvania politics?
01:25:30    2     A.      Thereabouts.
01:25:31    3     Q.      Working for various candidates?
01:25:33    4     A.      Yes.
01:25:33    5     Q.      A lot of judicial candidates,
01:25:35    6     you said?
01:25:36    7     A.      Yes.
01:25:37    8     Q.      On the Republican side?
01:25:39    9     A.      Yes.
01:25:39   10     Q.      And you've identified some of
01:25:41   11     the candidates that you worked with on
01:25:44   12     --- in your CV or worked for.
01:25:45   13             Correct?
01:25:46   14     A.      Yes.
01:25:46   15     Q.      And I believe there are 18 or
01:25:49   16     so candidates in there.  Does that
01:25:53   17     sound right?
01:25:54   18     A.      I suppose.  I mean, I have no
01:25:55   19     reason to doubt your counting.
01:25:58   20     Q.      Your CV says political work
01:26:01   21     experience, representative list.  So
01:26:04   22     did you omit some candidates that you
01:26:05   23     worked for?
01:26:06   24     A.      I'm sure that I did.
01:26:07   25     Q.      And why did you omit some?
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01:26:10    1    A.        Well, because it's a very,

01:26:12    2    very, long list.  There's a lot of

01:26:15    3    State Representative candidates,

01:26:19    4    legislative candidates, local

01:26:19    5    candidates, like Allegheny Council

01:26:22    6    candidates.  And honestly, there ---

01:26:22    7    you know, since I don't really do the

01:26:25    8    campaign work anymore, it's not

01:26:26    9    something I sort of kept with.

01:26:28   10             I mean, there may have been

01:26:29   11    candidates I worked with in 1999 that

01:26:31   12    I sort of forgotten the name and, you

01:26:33   13    know, I don't have the records on.  So

01:26:36   14    I don't want to misrepresent my resume

01:26:39   15    as being totally complete when I've

01:26:41   16    left out a District Attorney candidate

01:26:43   17    or a county council candidate and so

01:26:46   18    forth.  So that's the purpose.

01:26:46   19    Q.        But just to be clear, much of

01:26:46   20    your professional career has been

01:26:54   21    dedicated to helping Republican

01:26:55   22    candidates in Pennsylvania win their

01:26:57   23    seats?

01:26:57   24    A.        My career has been working on

01:26:58   25    the Republican side of the aisle, yes.
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01:26:58    1    Q.        And devoted to helping them win
01:27:03    2    their races.
01:27:03    3              Correct?
01:27:04    4    A.        Yes, that's the point.
01:27:04    5    Q.        And in this case, you've been
01:27:06    6    retained by Republican politicians on
01:27:09    7    their behalf.
01:27:09    8              Correct?
01:27:09    9    A.        Yes.
01:27:09    10   Q.        And you're advocating that
01:27:11    11   their maps be adopted?
01:27:12    12   A.        I've not been asked to advocate
01:27:16    13   for their maps.
01:27:16    14   Q.        So you don't have an opinion
01:27:19    15   about whether or not the maps put
01:27:20    16   forth by the Reschenthaler parties are
01:27:24    17   better or worse than any other maps
01:27:27    18   before this Court?
01:27:29    19   A.        I have an opinion, but I wasn't
01:27:30    20   retained to advocate for the maps.
01:27:36    21   Q.        Understood.
01:27:37    22   A.        Okay.
01:27:38    23              So that's the fine point.  I
01:27:39    24   want to make sure that I'm very clear
01:27:41    25   about that.  I have an opinion.
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01:27:43    1    Q.      Got it.
01:27:43    2    A.      You can form an opinion about
01:27:46    3    every map.  You could put --- you
01:27:47    4    could bring each of those maps.  I
01:27:48    5    don't know how many.  Are there 12?
01:27:51    6    Q.      There are 14.  And I
01:27:53    7    understand.
01:27:53    8    A.      I could bring each of those 14
01:27:53    9    maps and I can go through all of them
01:27:54   10    right now.  No problem.
01:27:54   11    Q.      Dr. Naughton?
01:27:56   12    A.      And offer you an opinion, an
01:27:57   13    analysis and so forth.
01:27:57   14    Q.      Dr. Naughton, I'm sorry.
01:28:00   15    A.      But so I do have an opinion on
01:28:01   16    that map if you want it.  So sorry.
01:28:04   17    I'm sorry.
01:28:04   18    Q.      And your opinion on the maps
01:28:06   19    for your clients who have hired you,
01:28:10   20    did you prefer that map or you think
01:28:12   21    it's a better map?
01:28:15   22    A.      What's the best way to put
01:28:16   23    this, the most accurate way to put
01:28:18   24    this?  I think Reschenthaler 1 and 2
01:28:28   25    are good maps.  I think that they
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01:28:29    1    would serve the state well.
01:28:30    2            But as I said earlier I don't
01:28:33    3    think that you can say that there is a
01:28:37    4    best map.  I mean, you can submit 100
01:28:41    5    maps.  And to say this is the best
01:28:44    6    map, I think it's --- in a way, it's
01:28:46    7    an impossible question.
01:28:48    8            But I think, it's my opinion,
01:28:50    9    that the Reschenthaler 1 and 2 maps
01:28:52   10    are good maps.  They would well
01:28:56   11    represent the state given --- you
01:28:57   12    know, given the restraints we have
01:28:59   13    because we have to have equal
01:29:01   14    distribution ---
01:29:01   15    Q.      Sure.
01:29:02   16    A.      --- and so forth.  And look,
01:29:03   17    you know, you got to make decisions at
01:29:05   18    some point.  So, you know, as we said
01:29:05   19    yesterday, some counties have to be
01:29:11   20    split up.  Some communities have to be
01:29:11   21    split up.  We just don't have any
01:29:13   22    choices.  We prefer not to.  But,
01:29:15   23    again, I think 1 and 2 are good maps.
01:29:16   24    Q.      Understood.  Thank you.
01:29:16   25    A.      Okay.
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01:29:21    1    Q.      And those maps, the
01:29:21    2    Reschenthaler maps, you heard the
01:29:23    3    testimony yesterday.
01:29:23    4            Correct?
01:29:24    5    A.      Yeah, I listened to all --- I
01:29:26    6    mean, the connection was --- so some
01:29:29    7    of it sort of looped out.  And I
01:29:29    8    didn't, like, look at the record or
01:29:29    9    anything, but I did watch the
01:29:29    10   testimony ---
01:29:29    11   Q.      That's all I'm asking.
01:29:37    12   A.      --- And I'd say maybe, like,
01:29:37    13   80 percent of it to be honest.
01:29:39    14   Q.      Okay.
01:29:40    15           Did you hear Dr. Barber's
01:29:41    16   testimony?
01:29:42    17   A.      Oh, no, I did not, because
01:29:46    18   yeah, we had left at that point.
01:29:46    19   Q.      Well, I'll represent to you
01:29:49    20   that the maps that your client has put
01:29:51    21   forward are --- according to Dr.
01:29:54    22   Barber's mean-median analysis the most
01:29:56    23   bias towards Republicans.
01:29:58    24           Were you aware of that?
01:29:59    25   A.      No.  I haven't covered the
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01:30:01   1   mean-median statistics, so ---.

01:30:02   2   Q.   That's fine. Just a yes ---.

01:30:04   3   A.   I'm really not in a position to

01:30:05   4   talk about mean-median and things of

01:30:07   5   that nature, so ---.

01:30:07   6   Q.   Doctor, please.

01:30:08   7   A.   Oh, I'm sorry. I apologize.

01:30:08   8   ATTORNEY GORDON:

01:30:09   9   Your Honor. I'm on a

01:30:11   10   time clock.

01:30:11   11   COURT CRIER TURNER:

01:30:16   12   Counsel, you cannot

01:30:16   13   speak at the same time. The court

01:30:17   14   report cannot get you.

01:30:17   15   JUDGE McCULLOUGH:

01:30:18   16   Mr. Gordon, Mr.

01:30:18   17   Haverstick has a comment objection.

01:30:21   18   ATTORNEY HAVERSTICK:

01:30:21   19   Your Honor, I do have an

01:30:22   20   objection. If a question can --- is

01:30:25   21   going to be asked and the witness is

01:30:27   22   attempting to answer it, I don't think

01:30:31   23   it's appropriate to talk over him.

01:30:33   24   JUDGE McCULLOUGH:

01:30:33   25   Well --- okay. Thank

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01:30:35   1   you, Mr. Haverstick. I appreciate

01:30:35   2   that point. And I always ask Counsel

01:30:37   3   to let a witness finish an answer.

01:30:42   4   But sometimes the answer is going on

01:30:44   5   also past the question.

01:30:49   6   So I would advise the

01:30:50   7   witness to please carefully listen to

01:30:51   8   the question and when Counsel begins

01:30:53   9   to ask you another question ---.

01:30:53   10   THE WITNESS:

01:30:55   11   I apologize, I'm just

01:30:56   12   trying to be ---.

01:30:57   13   JUDGE McCULLOUGH:

01:30:58   14   If you don't have an

01:31:00   15   opportunity to finish your question,

01:31:01   16   I'm sure your Counsel will interject.

01:31:03   17   But just please be respectful. I

01:31:04   18   think Mr. Gordon was trying to ask you

01:31:06   19   now a different question.

01:31:08   20   So Mr. Gordon, proceed.

01:31:09   21   ATTORNEY GORDON:

01:31:09   22   Thank you.

01:31:09   23   BY ATTORNEY GORDON:

01:31:10   24   Q.   Dr. Naughton, you offered a lot

01:31:12   25   of testimony on Direct about what you

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01:31:14   1   think people in certain areas want
01:31:15   2   with respect to the representation.
01:31:16   3   Correct?
01:31:17   4   A.   Yes.
01:31:17   5   Q.   And you identify nothing in
01:31:19   6   your report about any public opinion
01:31:21   7   polling that you've done relative to
01:31:24   8   these issues.
01:31:24   9   Correct?
01:31:25   10   A.   I don't think there is any
01:31:26   11   public opinion polling specific to
01:31:28   12   these issues.
01:31:29   13   Q.   Okay.
01:31:29   14   And you've identified ---
01:31:29   15   A.   Very specific issues.
01:31:30   16   Q.   --- and just to be clear the
01:31:31   17   question was, you've identified
01:31:33   18   nothing in your report regarding
01:31:34   19   polling of the people about the issue
01:31:37   20   that you purport to represent their
01:31:39   21   interests on?
01:31:40   22   A.   I have not seen any polling on
01:31:41   23   the issue.
01:31:42   24   Q.   You currently have a firm
01:31:46   25   called Silent Majority Strategies?

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01:31:49    1    A.      Yes.
01:31:49    2    Q.      Are you or your firm currently
01:31:51    3    consulting for or otherwise assisting
01:31:54    4    any political candidates, politicians
01:32:00    5    or judges?
01:32:01    6    A.      No.
01:32:01    7    Q.      Have you done any work on
01:32:02    8    campaigns in Pennsylvania since 2015?
01:32:04    9    A.      I did.  Let's see.  I provided
01:32:13   10    some advice to, I believe, a Superior
01:32:15   11    Court candidate just sort of very
01:32:18   12    briefly.
01:32:18   13    Q.      When was that?
01:32:20   14    A.      I think it was --- was it '17
01:32:25   15    or '19?  I'm not certain.
01:32:27   16    Q.      Okay.
01:32:28   17            I want to ask you about your
01:32:29   18    other experience.  You have not
01:32:31   19    appeared as an expert witness in a
01:32:34   20    redistricting litigation before?
01:32:36   21    A.      No.
01:32:36   22    Q.      And your report identifies no
01:32:39   23    particular experience in
01:32:40   24    redistricting.
01:32:41   25            Correct?
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01:32:41   1   A.   No.

01:32:43   2   Q.   No, meaning ---?

01:32:45   3   A.   Ask the question again.   I'm

01:32:46   4   sorry.

01:32:46   5   Q.   Your report identifies no

01:32:49   6   experience that you have particular to

01:32:53   7   redistricting.

01:32:53   8   Is that correct?

01:32:54   9   A.   Yes.

01:32:55   10   Q.   Thank you.

01:32:56   11   And have you actually tried to

01:32:58   12   draw a redistricting plan for

01:33:02   13   Pennsylvania that juggles all the

01:33:03   14   various constraints here?

01:33:05   15   A.   Tried to draw a map for this

01:33:08   16   ---

01:33:08   17   Q.   Yes.

01:33:08   18   A.   --- this apportion process?

01:33:11   19   Q.   Yes.

01:33:12   20   A.   Have I?   No.

01:33:13   21   Q.   The scope of your report, as I

01:33:21   22   think reflected on the first page, is

01:33:26   23   that you were going to review the

01:33:26   24   proposed maps and the submissions in

01:33:26   25   this matter and offer opinions on the

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01:33:26    1    same.
01:33:32    2              Is that accurate?
01:33:32    3    A.        Yes.
01:33:33    4    Q.        And your --- any opinions would
01:33:34    5    be identified in your report?  Any of
01:33:39    6    the opinions that you arrived at?
01:33:42    7    A.        I'm not sure.
01:33:45    8    Q.        Were the opinions you arrived
01:33:46    9    at in this case reflected in your
01:33:48   10    report?
01:33:50   11    A.        Yes, but --- yes.  Yeah.
01:33:55   12    Q.        Your report does not identify
01:33:58   13    any particular methodology that you
01:33:59   14    use to arrive at these opinions, does
01:34:02   15    it?
01:34:02   16    A.        No, it's just my opinion,
01:34:04   17    expert opinion.
01:34:04   18    Q.        And your report does not cite
01:34:06   19    any authority or particular evidence
01:34:08   20    for your opinions, does it?
01:34:11   21    A.        Just my experience.
01:34:13   22    Q.        And your report identifies no
01:34:15   23    opinions specific to the Carter map,
01:34:18   24    does it?
01:34:21   25    A.        I don't believe so, but ---.
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01:34:24   1    Q.        I have a question for you about
01:34:25   2    something you say in your report about
01:34:27   3    partisanship.  Are you saying the
01:34:32   4    Court should not take partisanship
01:34:34   5    into consideration?
01:34:34   6    A.        I don't believe I said that.
01:34:35   7    Q.        I'm just asking you that
01:34:37   8    question.  Is that your opinion?
01:34:39   9    A.        I mean, I don't ---.
01:34:42   10   Q.        Is your opinion that the Court
01:34:43   11   should not take partisanship, partisan
01:34:50   12   fairness, into consideration in
01:34:51   13   deciding the map?
01:34:51   14   A.        Okay.
01:34:51   15             That's a different question.
01:34:51   16   Partisan fairness ---
01:34:51   17   Q.        Yeah.
01:34:54   18   A.        --- or partisanship?
01:34:55   19   Q.        Let me make sure we have the
01:34:57   20   same question.
01:34:57   21   A.        Okay.  Yeah.
01:34:58   22   Q.        Is it your opinion that the
01:35:00   23   Court should not consider partisan
01:35:04   24   fairness when deciding upon a map?
01:35:05   25   A.        Well, what's fairness?  I have
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`01:35:07`   1   to tell you something. Fairness is a

`01:35:09`   2   totally subjective word. I mean, fair

`01:35:11`   3   is the greatest word in politics,

`01:35:13`   4   because it can mean anything you want.

`01:35:13`   5   Like, to me, if something's fair - - -

`01:35:15`   6   pardon me.

`01:35:15`   7   Q.   So it your understanding of

`01:35:19`   8   what partisan fairness means? Is it

`01:35:21`   9   your opinion that the Court should not

`01:35:23`   10   consider partisan fairness in

`01:35:25`   11   considering which map to adopt?

`01:35:28`   12   A.   Again, it depends on your

`01:35:30`   13   definition of fairness.

`01:35:35`   14   Q.   Under your definition, is that

`01:35:40`   15   a consideration - - - is that a

`01:35:41`   16   consideration you think the Court

`01:35:41`   17   should consider regardless of how

`01:35:44`   18   anybody identifies fairness? Should

`01:35:46`   19   the Court identify partisan fairness,

`01:35:49`   20   in your opinion?

`01:35:50`   21   A.   But everybody defines fairness

`01:35:51`   22   differently.

`01:35:51`   23   Q.   But should the Court consider

`01:35:55`   24   partisan fairness in deciding which

`01:35:58`   25   map to adopt? Yes or no?

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01:35:59    1    A.        Only if the Court establishes

01:36:01    2    an objective definition of fairness,

01:36:02    3    can it then make that judgment.  But

01:36:03    4    if the Court were to define an

01:36:05    5    objective definition of fairness, then

01:36:10    6    it could accept that as a condition,

01:36:14    7    in my opinion.

01:36:15    8    Q.        In your report, you talk about

01:36:16    9    splits and community of interests.

01:36:20    10             Correct?

01:36:20    11   A.        Yes.

01:36:20    12   Q.        And you say that it's a mistake

01:36:22    13   to focus on the number of

01:36:24    14   municipalities.

01:36:31    15             Correct?

01:36:31    16   A.        I think what I said was that

01:36:33    17   the population matters because we're

01:36:35    18   talking about how many people are

01:36:37    19   affected or harmed.  And so what we

01:36:40    20   really need to look at is population.

01:36:42    21   I don't think I said that we should

01:36:44    22   ignore --- completely ignore the

01:36:46    23   discreet number.

01:36:47    24             I'm just saying that, you know,

01:36:49    25   if you're splitting 500 people or 900
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01:36:53    1   people that that is --- that affects
01:36:57    2   fewer people than if you're splitting
01:36:59    3   20,000 or 30,000.  And we should
01:37:02    4   weight our consideration based on the
01:37:03    5   effect or based on the harm.
01:37:05    6   Q.      Did you say in your report that
01:37:06    7   splitting municipalities should be
01:37:08    8   calculated on the total population
01:37:11    9   affected by municipal splits, not the
01:37:14   10   number of splits?
01:37:16   11   A.      I believe you're reading from
01:37:18   12   my report, so I would agree.
01:37:18   13   Q.      And you agree that's your
01:37:19   14   opinion?
01:37:20   15   A.      Yes.
01:37:29   16   Q.      Okay.
01:37:29   17           And just generally, in your
01:37:31   18   opinion, splitting smaller
01:37:38   19   municipalities is less concerning than
01:37:38   20   splitting larger municipalities?
01:37:40   21   A.      Well, based on --- like, based
01:37:43   22   on the needs for federal advocacy and
01:37:43   23   based on what communities receive ---
01:37:44   24   like, if you look at a place -- like
01:37:46   25   the split in Reschenthaler 1 --- the
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01:37:47   1    Reschenthaler maps is Plum Township,
01:37:47   2    Venango County.
01:37:51   3             No professional staff,
01:37:52   4    volunteer fire department.  I think
01:37:54   5    most of the federal funds that go to
01:37:56   6    people there are transfer payments or
01:37:59   7    to formulate redistributed funds,
01:38:01   8    that's a community that --- you know,
01:38:04   9    it's fewer people, plus its needs
01:38:07   10   itself for federal aid, and its needs
01:38:10   11   for, particularly distributive ---
01:38:10   12   distributive or discretionary federal
01:38:10   13   funds are much less than the City of
01:38:16   14   Pittsburgh.  So actually not only are
01:38:19   15   more people harmed when you split the
01:38:21   16   City of Pittsburgh, but the impact is
01:38:23   17   even greater than if you split a rural
01:38:26   18   or smaller community in my opinion.
01:38:28   19   Q.       Okay.
01:38:29   20            So in answer to the question
01:38:30   21   --- and I appreciate the color, but
01:38:32   22   I'm just trying to get on record, your
01:38:34   23   opinion is that splitting a smaller
01:38:36   24   municipality is generally less
01:38:38   25   concerning or less of a problem than
```

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`01:38:40` 1   splitting a larger municipality?

`01:38:42` 2   A.   I think it has less weight,

`01:38:45` 3   less harm, yes.

`01:38:46` 4   Q.   And you talked about the City

`01:38:47` 5   of Pittsburgh, and I know you've

`01:38:50` 6   mentioned in your report and on

`01:38:51` 7   testimony that you think it's a big

`01:38:53` 8   mistake to split the City of

`01:38:56` 9   Pittsburgh.

`01:38:57` 10   Is that correct?

`01:38:57` 11 A.   I think it's a mistake, I think

`01:38:59` 12 it's unnecessary.

`01:38:59` 13 Q.   And you would agree with me

`01:39:00` 14 that the Carter plan does not split

`01:39:01` 15 the City of Pittsburgh.

`01:39:02` 16   Correct?

`01:39:02` 17 A.   I'd have to see --- yeah,

`01:39:03` 18 you're right --- your plan. Correct.

`01:39:05` 19 Yes.

`01:39:05` 20 Q.   And you said also --- and this

`01:39:07` 21 is on pages seven and eight of your

`01:39:11` 22 report, that it's an error, in your

`01:39:14` 23 opinion, to extend Bucks County into

`01:39:16` 24 Philadelphia, that it absolutely

`01:39:19` 25 should not go into Philadelphia.

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01:39:20    1              Correct?
01:39:22    2    A.        Yes.   I think that Bensalem,
01:39:24    3    Philadelphia line should be kept ---
01:39:25    4    Q.        Just a yes or no, please.
01:39:27    5    A.        --- should be the separation.
01:39:28    6    Q.        Okay.
01:39:28    7              And that instead the Bucks
01:39:30    8    County should be extended into
01:39:32    9    Montgomery County.
01:39:33   10              Correct?
01:39:33   11    A.        Yes, I think that is
01:39:36   12    preferable.
01:39:36   13    Q.        And that is what the Carter
01:39:39   14    plan did.
01:39:39   15              Correct?
01:39:40   16    A.        Yes.   And I think I testified
01:39:41   17    that I thought that that was a good
01:39:44   18    draw.
01:39:44   19    Q.        And you also said that
01:39:46   20    Philadelphia surplus should go to
01:39:48   21    Delaware County.
01:39:49   22              Correct?
01:39:49   23    A.        I think of the options that
01:39:51   24    would be the best option.
01:39:52   25    Q.        And that is what the Carter
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01:39:55    1    plan does.
01:39:55    2           Correct?
01:39:55    3    A.      I believe --- I would have to
01:39:57    4    look at the map again just to make
01:40:00    5    sure.
01:40:00    6    Q.      We can pull it up.
01:40:00    7    A.      I don't have the maps in front
01:40:04    8    of me.
01:40:04    9                    ATTORNEY GORDON:
01:40:06   10                    We can pull it up,
01:40:07   11    page 14 of the Rodden, please.  If you
01:40:07   12    can blow up the second paragraph,
01:40:07   13    please.
01:40:07   14    BY ATTORNEY GORDON:
01:40:13   15    Q.      You see here it says District 5
01:40:15   16    is based in Delaware County with a
01:40:17   17    portion reaching into south
01:40:20   18    Philadelphia.  And then, if we go back
01:40:21   19    to the bottom of the paragraph it says
01:40:22   20    I elected once again to keep the
01:40:25   21    structure of the existing map.  I keep
01:40:26   22    that south Philadelphia with Delaware
01:40:29   23    County.
01:40:29   24           Would you agree with me?
01:40:30   25    A.      Yes.
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01:40:31   1    Q.        And finally, you had some
01:40:34   2    criticism of computer drawn maps in
01:40:38   3    your Direct testimony.
01:40:38   4              Do you recall that?
01:40:43   5    A.        Yes, I think I felt that they
01:40:46   6    don't --- using a purely number based
01:40:51   7    formula does not adequately capture
01:40:54   8    all of the information.  And I think
01:40:55   9    that was also reflected in the expert
01:40:57  10    reports --- other expert reports.
01:40:58  11    Q.        And you would agree with me
01:41:00  12    that the Carter map was drawn by a
01:41:01  13    human not a computer.
01:41:03  14              Correct?
01:41:03  15    A.        I don't know, because ---.
01:41:04  16    Q.        Did you hear Dr. Rodden testify
01:41:06  17    to that yesterday?
01:41:07  18    A.        Well, I saw his testimony, but
01:41:08  19    again I didn't review the record, and
01:41:10  20    I didn't review every note.  But if
01:41:13  21    you say that that's in the record,
01:41:14  22    than I would agree.
01:41:17  23                        ATTORNEY GORDON:
01:41:18  24                        Thank you, Dr. Naughton?
01:41:18  25                        THE WITNESS:
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01:41:21    1                         Thank you.
01:41:21    2                    JUDGE McCULLOUGH:
01:41:21    3              Thank you, Counsel.
01:41:25    4                    ATTORNEY HAVERSTICK:
01:41:25    5              Your Honor, may I
01:41:26    6   correct the record?  It's an important
01:41:27    7   point, I think.
01:41:31    8                    JUDGE McCULLOUGH:
01:41:31    9              Let Mr. Gordon ---.
01:41:33   10                    ATTORNEY GORDON:
01:41:33   11              I'm sorry, does this
01:41:34   12   address me?
01:41:34   13                    ATTORNEY HAVERSTICK:
01:41:36   14              No.
01:41:36   15                    JUDGE McCULLOUGH:
01:41:36   16              No, I don't think so.
01:41:37   17   So let him gather his things and then
01:41:41   18   you can approach the podium.
01:41:42   19              Take your time.  All
01:41:45   20   right, sir.
01:41:46   21                    ATTORNEY HAVERSTICK:
01:41:46   22              Your Honor, when I was
01:41:47   23   sent this document yesterday by the
01:41:49   24   client, I confess I did not read with
01:41:51   25   my glasses on.  The date is from 2021,
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01:41:54    1    not 2022.
01:41:55    2                    Under the circumstances,
01:41:56    3    I'm not going to offer it into
01:41:58    4    evidence.  I didn't get around to
01:42:00    5    offering it.
01:42:01    6                    JUDGE McCULLOUGH:
01:42:01    7                    Which document?  The
01:42:04    8    Bucks County resolution?
01:42:05    9                    ATTORNEY HAVERSTICK:
01:42:05   10                    And with my apologies to
01:42:07   11    the Court for getting the date wrong,
01:42:08   12    but I'm not going to offer it into
01:42:10   13    evidence.
01:42:10   14                    JUDGE McCULLOUGH:
01:42:10   15                    Okay.  Thank you.  Thank
01:42:11   16    you for noting that for the record.
01:42:13   17                    ATTORNEY HAVERSTICK:
01:42:13   18                    Thank you.
01:42:13   19                    JUDGE McCULLOUGH:
01:42:14   20                    All right.
01:42:14   21                    Now, we will proceed
01:42:17   22    with Petitioner Gressman.
01:42:25   23                    ATTORNEY JOHNSON:
01:42:26   24                    Good morning.
01:42:26   25                        - - -
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01:42:26   1   CROSS EXAMINATION

01:42:26   2   - - -

01:42:28   3   BY ATTORNEY JOHNSON:

01:42:28   4   Q.   Good morning, Dr. Naughton?

01:42:36   5   A.   Nice to meet you.

01:42:37   6   Q.   Nice to meet you, too. Tassity

01:42:37   7   Johnson for the Gressman Math Science

01:42:42   8   petition.

01:42:42   9   JUDGE McCULLOUGH:

01:42:42   10   Can you remove your

01:42:44   11   mask?

01:42:44   12   ATTORNEY JOHNSON:

01:42:45   13   I'm sorry. I thought to

01:42:46   14   do it and immediately forgot.

01:42:48   15   BY ATTORNEY JOHNSON:

01:42:48   16   Q.   Dr. Naughton, you are not a

01:42:53   17   mathematician.

01:42:53   18   Correct?

01:42:54   19   A.   No.

01:42:54   20   Q.   It's a little confusing, I

01:42:56   21   guess, for the record, but when I say

01:42:56   22   correct, I guess maybe the answer is

01:42:58   23   yes rather than no?

01:43:00   24   A.   Did I say correct.

01:43:01   25   Q.   No, you said no. I will re-ask

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01:43:06   1    the question again.  It's very
01:43:07   2    confusing.
01:43:07   3              So you're not a mathematician.
01:43:09   4              Correct?
01:43:10   5    A.        Yes.  Right.  Okay.
01:43:12   6    Q.        That is confusing.  So in your
01:43:17   7    report you didn't provide a
01:43:19   8    quantitative analysis of how any of
01:43:19   9    the proposed plans perform on the
01:43:21   10   neutral redistricting criteria.
01:43:23   11             Correct?
01:43:24   12   A.        Correct.  Yes.  Sorry.
01:43:27   13   Q.        And you also didn't provide a
01:43:30   14   quantitative analysis of how any of
01:43:33   15   the proposed plans actually perform on
01:43:35   16   any metrics of partisan fairness.  And
01:43:38   17   when I say partisan fairness I mean
01:43:40   18   whether the maps treat voters for the
01:43:42   19   same party --- I mean, for each party
01:43:45   20   equally.
01:43:47   21             Correct?
01:43:49   22   A.        Yes.
01:43:49   23   Q.        Instead you believe the
01:43:53   24   quantitative measures of partisan
01:43:57   25   fairness are incomplete.
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01:43:59   1   Correct?

01:44:06   2   A.   I don't agree with the word ---

01:44:08   3   the incomplete.

01:44:09   4   Q.   Well, taking that directly ---?

01:44:14   5   A.   Because that implies that the

01:44:17   6   models produced themselves are somehow

01:44:20   7   flood, and I'm not arguing that point.

01:44:21   8   I'm not arguing that your clients,

01:44:22   9   your experts or anyone else's are

01:44:24   10   doing bad math or bad analysis. I'm

01:44:27   11   not in a position to do so.

01:44:29   12   What I was saying is that the

01:44:31   13   models that you are --- that you have

01:44:35   14   presented, they're not --- they don't

01:44:39   15   provide --- they ignore other factors

01:44:42   16   and so they're only a portion of the

01:44:48   17   --- of what the final outcome of

01:44:50   18   elections would be.

01:44:53   19   So I'm not saying that the

01:44:55   20   modeling specific as a unit was

01:44:58   21   incomplete. I'm saying that unless we

01:45:00   22   take into account national factors,

01:45:04   23   President, midterms, state of the

01:45:08   24   economy, et cetera, et cetera, unless

01:45:10   25   we consider that, we cannot provide an

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01:45:12    1    accurate prediction of the eventual
01:45:15    2    outcome of elections, and I think
01:45:18    3    that's been shown historically in
01:45:20    4    Pennsylvania.
01:45:21    5    Q.      Okay.
01:45:22    6            Understood.
01:45:23    7            But you're not offering an
01:45:24    8    opinion about whether the Gressman
01:45:27    9    Math Science Petitioners map is fair
01:45:28    10   under the definition I gave you, under
01:45:30    11   any quantitative measure of partisan
01:45:33    12   fairness.
01:45:34    13           Right?
01:45:38    14   A.      Could you repeat that again,
01:45:40    15   please?
01:45:40    16   Q.      Of course.  You're not offering
01:45:41    17   an opinion about whether the Gressman
01:45:44    18   Math Science Petitioner's map is fair
01:45:46    19   under any quantitative measure of
01:45:53    20   fairness.
01:45:54    21           Right?
01:45:54    22   A.      Yes.
01:45:54    23   Q.      And you're not offering an
01:45:56    24   opinion about whether the Gressman
01:45:58    25   Math Science Petitioner's map is fair
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01:46:00    1    under any other measure of partisan
01:46:02    2    fairness.
01:46:02    3            Right?
01:46:06    4    A.       Yes.
01:46:07    5    Q.       So in your report, Dr.
01:46:16    6    Naughton, you state that you believe a
01:46:19    7    congressional map should be --- I'm
01:46:20    8    sorry, should keep Pennsylvanians
01:46:23    9    municipalities as whole as possible.
01:46:28   10            Right?
01:46:31   11    A.       Provided --- you know, based
01:46:35   12    --- I believe that they should be kept
01:46:37   13    whole and the judgment should also
01:46:41   14    include factors of population of
01:46:43   15    community size.  I believe it should
01:46:45   16    be weighted in that fashion.  Those
01:46:49   17    factors should be considered.  But as
01:46:50   18    far as keeping communities whole, yes.
01:46:53   19    Q.       And just to be clear, when you
01:46:55   20    say communities, do you mean
01:46:57   21    municipalities?
01:46:58   22    A.       Yes.  I mean, municipalities I
01:47:00   23    mean the municipal units of township,
01:47:04   24    borough, city, et cetera.
01:47:05   25    Q.       Thank you.
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01:47:06    1    A.       And I don't --- I'm sorry ---
01:47:08    2    oh no.
01:47:09    3    Q.       Okay.
01:47:09    4                      ATTORNEY JOHNSON:
01:47:10    5                      And I'm just going to
01:47:12    6    show you something.  I don't know
01:47:13    7    entirely how this works.  I'm just
01:47:15    8    going to put the paper on it.  Do I
01:47:17    9    need to push anything for the ELMO?
01:47:21    10                     JUDGE McCULLOUGH:
01:47:21    11                     You are asking the wrong
01:47:22    12   person.  Sorry.
01:47:26    13                     ATTORNEY JOHNSON:
01:47:27    14                     Okay.
01:47:28    15   BY ATTORNEY JOHNSON:
01:47:28    16   Q.       So Dr. Naughton, I'm showing
01:47:29    17   you a table from Dr. DeFord's expert
01:47:32    18   report, Table 6.  And Table 6 shows
01:47:34    19   all political subdivision splits in
01:47:36    20   all of the parties maps, as well as
01:47:38    21   the 2018 plan.
01:47:41    22            Right?
01:47:46    23   A.       Yes.
01:47:46    24   Q.       And the middle row shows the
01:47:49    25   total number of split municipalities
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